### RECORD OF DECISION

Radiation Technology, Inc. Site

Rockaway Township, Morris County, New Jersey

U.S. Environmental Protection Agency

Region II

2011

#### **DECLARATION STATEMENT**

#### **RECORD OF DECISION**

#### **SITE NAME AND LOCATION**

Radiation Technology, Inc. (EPA ID# NJD0047684451) Rockaway Township, Morris County, New Jersey

#### STATEMENT OF BASIS AND PURPOSE

This decision document presents the Remedy to address a drum disposal area at the Radiation Technology, Inc. site (the Site) located in Rockaway Township, Morris County, New Jersey.

The Remedy was selected in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §9601 et seq., and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. This decision is based on the Administrative Record file for the Site, an index of which can be found in Appendix IV.

The State of New Jersey concurs with the Selected Remedy. A copy of the concurrence letter can be found in Appendix V.

#### ASSESSMENT OF THE SITE

The response action selected in this Record of Decision (ROD) is necessary to protect the human health, welfare, or the environment from actual or threatened releases of hazardous substances from the Site into the environment.

#### DESCRIPTION OF THE SELECTED REMEDY

The response action described in this document addresses a drum disposal area at the Radiation Technology, Inc. site. A previous ROD, signed in May 1994, addressed groundwater contamination at the Site.

The major component of the Selected Remedy is the following:

• Excavation of drum material and surrounding soils with off-site disposal and/or treatment.

#### **DECLARATION OF STATUTORY DETERMINATIONS**

#### Part I: Statutory Requirements

The Selected Remedy is protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to the remedial action to

the extent practicable, and is cost-effective. The Remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a practicable manner for the drum disposal area at the Site.

#### Part 2: Statutory Preference for Treatment

The Remedy meets the statutory preference for the use of remedies that involve treatment as a principal element.

#### Part 3: Five-Year Review Requirements

Because the Remedy will not result in hazardous substances, pollutants, or contaminants remaining above levels that allow for unlimited use and unrestricted exposure, EPA anticipates that a five-year review will not be required for the drum disposal remedy.

#### ROD DATA CERTIFICATION CHECKLIST

The following information is included in the Decision Summary section of this ROD. Additional information can be found in the Administrative Record file for this Site.

- Chemicals of concern and their respective concentrations may be found in the "Site Characteristics" section.
- A discussion of source materials constituting principal threats may be found in the "Principal Threat Waste" section.
- A discussion of the baseline risk represented by the chemicals of concern may be found in the "Summary of Site Risks" section. This discussion is based on the human health risk assessment from the 2010 Remedial Investigation report. Cleanup goals for soils can be found in the "Remedial Action Objectives" section.
- Current and reasonably anticipated future land use assumptions used in the baseline risk assessment and ROD can be found in the "Current and Potential Future Site and Resource Uses" section.
- Estimated capital, operation and maintenance (O&M), and total present worth costs, discount rate, and the number of years over which the remedy cost estimates are projected can be found in the "Description of Remedial Alternatives" section.
- Key factors that led to selecting the remedy may be found in the "Comparative Analysis of Alternatives" and "Statutory Determinations" sections.

Walter E. Mugdan, Director

Emergency & Remedial Response Division

EPA - Region II

Date

# RECORD OF DECISION DECISION SUMMARY

Radiation Technology, Inc. Site

Rockaway Township, Morris County, New Jersey

U.S. Environmental Protection Agency Region II New York, New York

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#### SITE NAME, LOCATION AND DESCRIPTION

The Radiation Technology, Inc. (RTI) site (the Site) is located near the small residential community of Lake Telemark, New Jersey in the western portion of Morris County. The Site is located approximately 5 miles north of Exit 37 off U.S. Interstate 80 and has an address of 108 Lake Denmark Road, Rockaway Township, New Jersey. The Site location is depicted on Figure 1. A Site Plan is presented as Figure 2.

The entire Site consists of approximately 263 acres of land which is comprised of three distinct areas: the active former RTI complex (15 acres), the former Rockaway Industrial Park (RIP) (65 acres), and undeveloped land (183 acres) adjacent to those areas (Figure 3).

Past activities at the Site have included the testing and development of rocket motors and propellants. More recent operations included irradiating food, cosmetics, and medical devices to sterilize them. Buildings in the RIP area have been vacant since 2006 and are in various stages of disrepair and/or disintegration.

The area around the Site is generally low-density residential in nature. However, there has been significant residential and industrial development in the region. To the west of the Site, on the other side of Lake Denmark, significant heavy industrial activities have been ongoing at the Army and Navy portions of the Picatinny Military Arsenal facilities since the early 1900s. Areas to the east of the Site consist mainly of single-family residences situated in the population centers mentioned previously.

With the exception of one business, Sterigenics International, the RTI Site is unoccupied.

#### **SITE CHARACTERISTICS**

Prior to 1941, the 263-acre study area was owned by the Singer Manufacturing Company. Reaction Motors, Inc. purchased the property in 1941 and, in approximately 1947, began the construction of facilities to support rocket engine and component testing programs. Reaction Motors, Inc. was acquired by a corporate predecessor to the Olin Corporation in 1953 and thereafter by Thiokol Chemical Corporation (Thiokol) in 1958. In 1964, Reaction Motors was formally combined with Thiokol and became a separate working division within the company (Acres, 1991). During the 1990s, Thiokol was renamed Cordant Technologies, Inc. ("Cordant").

In 1972, RTI purchased a 15-acre parcel of the Site (located northwest of Lake Denmark Road) where it conducted irradiation activities until it sold this operation to Sterigenics International in 1996. In 1978, RTI purchased the remaining 248 acres of the Site from Thiokol and leased portions of this property to various tenants. In November 1999, RTI, Inc. filed for Chapter 11 bankruptcy and there has been no financially solvent owner of the Site since that time. Although RTI was no longer an active owner of the property, various tenants remained in the P-2, South Stand, and East Stand areas of the Site until 2006 when the United States Environmental Protection Agency (EPA) took control of the

Site and Rockaway Township evicted the tenants from the property. The vacant property east of Lake Denmark Road was secured to prevent public access and signs were posted indicating the area was a federal Superfund Site, however, there has been evidence of trespassers. Sterigenics International continues to operate on the RTI portion of the Site (west of Lake Denmark Road).

In 2001, Alliant Techsystems, Inc. (ATK) acquired Cordant. In 2004, ATK and EPA entered into an Administrative Order on Consent for Operable Unit 2 to conduct a remedial investigation/feasibility study for potential sources of groundwater contamination at the Site.

#### **Previous Remedy Selection**

On May 9, 1994, EPA issued a Record of Decision (ROD) for Operable Unit 1, which selected the following remedial action objectives for the Site:

- Restore the contaminated groundwater plume to levels below federal and state Maximum Contaminant Levels (MCLs).
- Restore the groundwater to its beneficial use, which is a drinking water aquifer.

These goals would be achieved by the following remedial action components:

- Extraction of contaminated groundwater above the cleanup standards;
- Treatment of the extracted groundwater via air stripping and carbon adsorption;
- Reinjection of the treated groundwater; and
- Appropriate environmental monitoring to ensure the effectiveness of the remedy.

The ROD stated that the goal of the groundwater remedy was to restore the contaminated groundwater to levels below the more stringent of the federal and state MCLs (1 ppb) established by the Safe Drinking Water Act to prevent adverse health effects.

#### **CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES**

The area around the Site is generally low-density residential in nature. To the west of the Site, on the other side of Lake Denmark, significant heavy industrial activities have been ongoing at the Army and Navy portions of the Picatinny Military Arsenal facilities since the early 1900s. Areas to the east of the Site consist mainly of single-family residences situated in the population centers mentioned previously. With the exception of one business, Sterigenics International, the RTI Site is unoccupied. The property is zoned commercial, which leaves open the possibility for redevelopment in the future.

#### SUMMARY OF SITE RISKS

As part of the Remedial Investigation/Feasibility Study, EPA conducted a baseline risk assessment to estimate the current and future effects of contaminants on human health and the environment. A baseline risk assessment is an analysis of the potential adverse human health and ecological effects of releases of hazardous substances from a site in the absence of any actions or controls to mitigate such releases, under current and future land uses. The baseline risk assessment includes a human health risk assessment and an ecological risk assessment. It provides the basis for taking action and identifies the contaminants and exposure pathways that need to be addressed by the remedial action. This section of the ROD summarizes the results of the baseline risk assessment for the Site.

#### Human Health Risk Assessment

A four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario: Hazard Identification – uses the analytical data collected to identify the contaminants of potential concern at the Site for each medium, with consideration of a number of factors explained below; Exposure Assessment estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., incidental ingestion of drum material and soil) by which humans are potentially exposed; Toxicity Assessment - determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization - summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. The risk characterization also identifies contamination with concentrations which exceed acceptable levels, defined by the National Contingency Plan (NCP) as an excess lifetime cancer risk greater than 1 x 10<sup>-6</sup> to 1 x 10<sup>-4</sup>, an excess of lifetime cancer risk greater than 1 x 10<sup>-6</sup> (i.e., point of departure) combined with site-specific circumstances, or a Hazard Index greater than 1.0; contaminants at these concentrations are considered chemicals of concern (COCs) and are typically those that will require remediation at the Site. Also included in this section is a discussion of the uncertainties associated with these risks.

#### Hazard Identification

In this step, the chemicals of potential concern (COPCs) in each medium were identified based on such factors as toxicity, frequency of occurrence, fate and transport of the contaminants in the environment, concentrations, mobility, persistence, and bioaccumulation. The risk assessment focused on exposure to soil, surface water and sediment, and drum materials which may pose significant risk to human health. Analytical information that was collected to determine the nature and extent of contamination revealed the presence of several metals in the drum materials and surrounding soil at concentrations of potential concern.

A comprehensive list of all COPCs can be found in the baseline human health risk assessment (BHHRA), entitled "Remedial Investigation Report – Operable Unit 2 –

Radiation Technology, Inc. Superfund Site". This document is available in the Administrative Record file. This ROD focuses on Operable Unit 2, which evaluated exposure to soil across the entire site, surface water and sediment, and exposure to drum materials and surrounding soil. The drum material and surrounding soil were the only media with risks and hazards that exceeded acceptable values; therefore, only the COCs, or those chemicals requiring remediation at the Site, related to drum materials and the surrounding soil are listed in Table 1. Buildings found on-site continue to be evaluated and may be addressed as a future operable unit.

#### Exposure Assessment

Consistent with Superfund policy and guidance, the BHHRA is a baseline human health risk assessment and therefore assumes no remediation or institutional controls to mitigate or remove hazardous substance releases. Cancer risks and noncancer hazard indices were calculated based on an estimate of the reasonable maximum exposure (RME) expected to occur under current and future conditions at the Site. The RME is defined as the highest exposure that is reasonably expected to occur at a site. For those contaminants for which the risk or hazard exceeded the acceptable levels, the central tendency estimate (CTE), or the average exposure, was also evaluated.

With the exception of one business, Sterigenics International, the RTI Site is unoccupied. It is anticipated that the future land use for this area will remain consistent with its current use. The potential use of the Site for residential development is unknown; therefore, a future use that evaluated residential use was also considered in the risk assessment. The (BHHRA) evaluated potential risks to populations associated with both current and potential future land uses.

Exposure pathways were identified for each potentially exposed population and each potential exposure scenario. Potentially exposed populations included trespassers, construction workers and recreational users. Exposure pathways assessed in the BHHRA included incidental ingestion, dermal contact, and inhalation of soil, incidental ingestion and dermal contact of surface water and sediment, and incidental ingestion, dermal contact, and inhalation of drum materials and surrounding soil. A summary of the exposure pathways that was associated with unacceptable risks or hazards in Table 2. Typically, exposures are evaluated using a statistical estimate of the exposure point concentration, which is usually an upper-bound estimate of the average concentration for each contaminant, but in some cases may be the maximum detected concentration. A summary of the exposure point concentrations for the COCs in drum materials and surrounding soil can be found in Table 1, while a comprehensive list of the exposure point concentrations for all COPCs (i.e., soil over the entire site, surface water and sediment, and drum materials and surrounding soil) can be found in the BHHRA.

#### **Toxicity Assessment**

Under current EPA guidelines, the likelihood of carcinogenic risks and noncancer hazards due to exposure to site chemicals are considered separately. Consistent with current EPA policy, it was assumed that the toxic effects of the site-related chemicals would be additive. Thus, cancer and noncancer risks associated with exposures to individual COPCs were summed to indicate the potential risks and hazards associated with mixtures of potential carcinogens and noncarcinogens, respectively.

Toxicity data for the human health risk assessment were provided by the Integrated Risk Information System (IRIS) database, the Provisional Peer Reviewed Toxicity Database (PPRTV), or another source that is identified as an appropriate reference for toxicity values consistent with EPA's directive on toxicity values. This information for the COCs is presented in Table 3 (noncancer toxicity data summary) and Table 4 (cancer toxicity data summary). Additional toxicity information for all COPCs is presented in the BHHRA.

#### Risk Characterization

Noncarcinogenic risks were assessed using a hazard index (HI) approach, based on a comparison of expected contaminant intakes and benchmark comparison levels of intake (reference doses, reference concentrations). Reference doses (RfDs) and reference concentrations (RfCs) are estimates of daily exposure levels for humans (including sensitive individuals) which are thought to be safe over a lifetime of exposure. The estimated intake of chemicals identified in environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) is compared to the RfD or the RfC to derive the hazard quotient (HQ) for the contaminant in the particular medium. The HI is obtained by adding the hazard quotients for all compounds within a particular medium that impacts a particular receptor population.

The HQ for oral and dermal exposures is calculated as below. The HQ for inhalation exposures is calculated using a similar model that incorporates the RfC, rather than the RfD.

HQ = Intake/RfD

Where:

HQ = hazard quotient

Intake = estimated intake for a chemical (mg/kg-day)

RfD = reference dose (mg/kg-day)

The intake and the RfD will represent the same exposure period (i.e., chronic, subchronic, or acute).

As previously stated, the HI is calculated by summing the HQs for all chemicals for likely exposure scenarios for a specific population. An HI greater than 1.0 indicates that the potential exists for noncarcinogenic health effects to occur as a result of site-related

exposures, with the potential for health effects increasing as the HI increases. When the HI calculated for all chemicals for a specific population exceeds 1.0, separate HI values are then calculated for those chemicals which are known to act on the same target organ. These discrete HI values are then compared to the acceptable limit of 1.0 to evaluate the potential for noncancer health effects on a specific target organ. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. A summary of the noncarcinogenic risks associated with these chemicals for each exposure pathway exceeding an HI of 1.0 is contained in Table 5.

It can be seen in Table 5 that the HI for noncancer effects for exposure to drum materials to future residential adults/children and future industrial workers exceeds the acceptable EPA value of 1.0. The contaminants of concern related to the drum material are aluminum, cobalt, copper, iron, manganese, and thallium. Although the noncancer hazard to the future industrial worker is above the acceptable value of 1.0, the target organ breakdown shows that there were no individual chemicals or chemicals that affect the same organ that exceeded the hazard index of 1.0; therefore, it is unlikely that there would be adverse health effects for future industrial workers in the drum area. Similarly, although the noncancer hazard to potential residents due to exposure to surface soils exceeds an HI of 1.0, there are no chemicals that affect the same organ that exceeded the hazard index of 1.0; so there is no unacceptable risk for the residential exposure route for surface soil surrounding the drums. The contaminants of concern in the surface soil surrounding the drums included cobalt, iron, and manganese.

For carcinogens, risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a carcinogen, using the cancer slope factor (SF) for oral and dermal exposures and the inhalation unit risk (IUR) for inhalation exposures. Excess lifetime cancer risk for oral and dermal exposures is calculated from the following equation, while the equation for inhalation exposures uses the IUR, rather than the SF:

 $Risk = LADD \times SF$ 

Where:

Risk = a unitless probability (1 x  $10^{-6}$ ) of an individual developing cancer LADD = lifetime average daily dose averaged over 70 years (mg/kg-day) SF = cancer slope factor, expressed as [1/(mg/kg-day)]

These risks are probabilities that are usually expressed in scientific notation (such as 1 x 10<sup>-4</sup>). An excess lifetime cancer risk of 1 x 10<sup>-4</sup> indicates that one additional incidence of cancer may occur in a population of 10,000 people who are exposed under the conditions identified in the assessment. Again, as stated in the National Contingency Plan, the point of departure is 10<sup>-6</sup> and the acceptable risk range for site-related exposure is 10<sup>-6</sup> to 10<sup>-4</sup>.

Results of the BHHRA presented in Table 6 indicate that exposure to drum materials for future residential adult and children exceed the acceptable EPA cancer risk range of 1 x  $10^{-6}$  to 1 x  $10^{-4}$  due to exposure to arsenic in the drum material.

In summary, metals detected in the drum material contribute to unacceptable noncancer hazards and cancer risks to residential populations that may use the Site in the future. The response action selected in the Record of Decision is necessary to protect the human health or welfare of the environment from actual or threatened releases of contaminants into the environment.

#### Uncertainties

The procedures and inputs used to assess risks in this evaluation, as in all such assessments, are subject to a wide variety of uncertainties. In general, the main sources of uncertainty include:

- •environmental chemistry sampling and analysis
- •environmental parameter measurement
- •fate and transport modeling
- •exposure parameter estimation
- •toxicological data.

The primary uncertainty with the calculated risks and hazards for this Site were associated with soil ingestion rates, fraction ingested, and exposure duration. Many of the contaminants of concern are also trace elements which are known to be poorly absorbed by the gut. This may have overestimated the risks and hazards. The values used for the fraction of soil ingested and the exposure duration were conservative values that also may have resulted in overestimation of the risks and hazards.

More specific information concerning human health risks, including a quantitative evaluation of the degree of risk associated with various exposure pathways is presented in the baseline human health risk assessment report.

#### **Ecological Risk Assessment**

A screening-level ecological risk assessment was conducted to evaluate the potential for ecological effects from exposure to soil, surface water and sediment. Soil, surface water, and sediment concentrations were compared to ecological screening values as an indicator of the potential for adverse effects to ecological receptors. Exposure was also evaluated for terrestrial and aquatic wildlife species through the ingestion of prey and direct soil ingestion. A complete summary of all exposure scenarios can be found in the screening level ecological risk assessment (SLERA).

Initial Screening: The initial steps in the SLERA identified thirteen COPCs (i.e., antimony, barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, selenium, vanadium, zinc, and total high-molecular weight (HMW) polyaromatic hydrocarbons (PAHs)) for terrestrial plants and soil invertebrates, with hazard quotients (HQs) ranging from 2.6 to 74, eight COPCs (i.e., barium, cadmium, chromium, copper, lead, manganese, vanadium, and zinc) for aquatic plants and animals, with HQs ranging

from 1.1 to 118, and ten COPCs (i.e., antimony, arsenic, barium, cadmium, cobalt, copper, lead, mercury, selenium, and zinc) in benthic invertebrates, with HQs ranging from 1.1 to 82, through comparing site concentrations to protective screening values.

In addition, there were twelve COPCs (i.e., barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, selenium, vanadium, zinc, and total HMW PAHs identified for avian wildlife (i.e., American robin and American kestrel), with HQs ranging from 1.1 to 869, and thirteen COPCs (i.e., antimony, barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, selenium, vanadium, zinc, and total HMW PAHs for the meadow vole, short-tailed shrew, and Eastern cotton tail, seven COPCs (i.e., antimony, chromium, copper, lead, manganese, vanadium, with HQs ranging from 1.5 to 364, and total HMW PAHs) for the red fox, with HQs ranging from 1.1 to 38, and seven COPCs (i.e., antimony, arsenic, cadmium, copper, lead, manganese, and selenium) for the American mink, with HQs ranging from 1.5 to 103, based on comparison of food-web modeled concentrations to protective screening values.

Refinement: After the initial screening step in the SLERA, the evaluation proceeded to the next step which included refining the exposure assumptions, exposure concentrations, comparison values, and background concentrations to provide a more realistic assessment of potential risk to ecological receptors at the Site. The results of the next step of the SLERA identified six COPCs (i.e., chromium, manganese, mercury, selenium, vanadium, and zinc) for terrestrial plants, with HQs ranging from 1.3 to 124, five COPCs (i.e., chromium, manganese, mercury, vanadium, and zinc) for soil invertebrates, with HQs ranging from 1.8 to 309, two COPCs (i.e., barium and manganese) for aquatic plants and animals, with HQs ranging from 4.5 to 23, and five COPCs (i.e., antimony, barium, cobalt, mercury, and selenium) for benthic invertebrates, with HQs ranging from 1.2 to 4.2.

The compounds identified in the preceding paragraph were then compared to background concentrations. All of the compounds (i.e., barium, cobalt, chromium, manganese, mercury, selenium, vanadium, and zinc) except for antimony and selenium in sediment were determined to have concentrations that were similar to background, which indicates that they would not be considered as COCs for the Site. Antimony and selenium were both infrequently detected and were present, when detected, at concentrations near the screening values (i.e., HQs very close to 1.0); therefore, these compounds are not considered COCs for the Site.

The refinement of the food-web model parameters identified seven COPCs (i.e., chromium, copper, lead, manganese, vanadium, zinc, and total HMW PAHs) for the American robin when using the no observed adverse effect level (NOAEL), with HQs ranging from 1.5 to 20 and two COPCs (i.e., chromium and vanadium) when using the lowest observed adverse effect level (LOAEL), with HQs ranging from 1.7 to 2.1. This indicates that there may be adverse effect to avian species, using the American robin as a surrogate, due to chromium and vanadium. These compounds were further evaluated by comparing the concentrations to background concentrations. Chromium and vanadium were determined to have concentrations which were similar to background, which

indicates that they would not be considered COCs. There were also six COPCs (i.e., antimony, cadmium, chromium, lead, manganese, and total HMW PAHs) identified for the short-tailed shrew when using the NOAEL, with HQs ranging from 1.3 to 6.6, however, there were no COPCs identified when using the LOAEL, which indicates that impacts to short-tailed shrews are unlikely. There were no COPCs identified for the remaining ecological receptors (i.e., meadow vole, Eastern cottontail, red fox, or American mink) during the refinement step.

#### Summary

The results of the SLERA indicate that concentrations of contaminants detected in soil, surface water, and sediment at the Site are unlikely to pose any unacceptable risks to terrestrial or aquatic ecological receptors at the Site.

#### **REMEDIAL ACTION OBJECTIVES**

This section defines the goals of the remedial action, and identifies the remedial action objectives (RAOs) for drum contents in the drum disposal area located in the RTI portion of the Site. RAOs consist of quantitative goals for reducing human health and environmental risks and/or meeting established regulatory requirements at Superfund sites. Reviewing site characterization data, human health risk assessment results, applicable or relevant and appropriate requirements (ARARs), and other relevant site information identifies RAOs. Based on current site data and evaluations of potential risk, arsenic and six metals (aluminum, cobalt, copper, iron, manganese, and thallium) were identified as being contaminants of potential concern and the primary cause of human health risk at the Site.

One RAO has been developed for the RTI Site:

• Reduce or eliminate direct contact risks associated with contaminated drum material and associated contaminated soil to levels protective for residential use.

To achieve this RAO, cleanup goals were developed for the Site based on state-promulgated ARARs.

#### **DESCRIPTION OF REMEDIAL ALTERNATIVES**

The Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §9601 et seq., requires that each remedial alternative be protective of human health and the environment, be cost effective, comply with other statutory laws, and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable. In addition, CERCLA includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility or volume of hazardous substances.

CERCLA requires that if a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure, EPA must review the action no less than every five years after initiation of the action. In addition, institutional controls (e.g., a deed notice, an easement or a covenant) to limit the use of portions of the property may be required. These use restrictions are discussed in each alternative as appropriate. The time frames below for construction do not include the time for remedial design or the time to procure contracts.

#### Alternative 1: No action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$0 Estimated Present Worth Cost: \$0

Estimated Construction Time frame: None

Superfund regulations require that a "no action" alternative be evaluated to establish a baseline for comparison to other alternatives. Under this alternative, EPA would take no action at the Site to prevent exposure to contaminated drum material. Since this alternative would result in contaminants remaining on the Site above levels that would not allow for unlimited use, a review of the Site at least every five years would be required.

## Alternative 2: Excavation of Drum Material, with Off-Site Disposal and/or Treatment

Estimated Capital Cost: \$196,000 Estimated Annual O & M Cost: \$4,000 Estimated Present Worth Cost: \$200,000 Estimated Construction Time frame: 1 month Estimated Time to Achieve RAOs: 1 month

Under this alternative, contaminated drum material in the drum disposal area would be excavated and transported off site for disposal and/or treatment. Following excavation of the drum material, soils adjacent to the excavated drum material will be sampled to determine if they are above the cleanup goals. If the sampling results indicate that the soils are above cleanup goals, they will be excavated and disposed and/or treated off-site. In addition, any debris that is comingled with the contaminated drum material will be removed, disposed and/or treated off-site. Following source remediation, areas disturbed by excavation activities will be re-vegetated and restored to pre-excavation conditions.

#### **COMPARATIVE ANALYSIS OF ALTERNATIVES**

In selecting a remedy, EPA considered the factors set out in CERCLA §121, 42 U.S.C. §9621, by conducting a detailed analysis of the viable remedial response measures pursuant to the NCP, 40 CFR §300.430(e)(9) and OSWER Directive 9355.3-01. The

detailed analysis consisted of an assessment of the individual response measure against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each response measure against the criteria.

Threshold Criteria - The first two criteria are known as "threshold criteria" because they are the minimum requirements that each response measure must meet in order to be eligible for selection as a remedy.

#### 1. Overall Protection of Human Health and the Environment

Overall protection of human health and the environment addresses whether each alternative provides adequate protection of human health and the environment and describes how risks posed through each exposure pathway are eliminated, reduced, or controlled, through treatment, engineering controls, and/or institutional controls.

Alternative 1, "no action," will not provide adequate protection of human health and the environment. Alternative 2 (excavation of drum material with off-site disposal and/or treatment) will remove the contaminated material in the drum disposal area. Therefore, Alternative 2 is considered to be protective of human health and the environment.

Because the "no action" alternative is not protective of human health and the environment, it was eliminated from consideration under the remaining eight criteria.

## 2. Compliance with applicable or relevant and appropriate requirements (ARARs)

Section 121(d) of CERCLA and NCP §300.430(f)(1)(ii)(B) require that remedial actions at CERCLA sites at least attain legally applicable or relevant and appropriate Federal and State requirements, standards, criteria, and limitations which are collectively referred to as "ARARs," unless such ARARs are waived under CERCLA section 121(d)(4).

Applicable requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable. Relevant and appropriate requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well-suited to the particular site. Only those state standards that are identified in a timely manner and that are more stringent than federal requirements may be relevant and appropriate.

Compliance with ARARs addresses whether a remedy will meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes or provides a basis for invoking a waiver.

Actions taken at any Superfund site must meet all ARARs for federal and state law or provide grounds for invoking a waiver of these requirements. These include chemical-specific, location-specific, and action-specific ARARs. Alternative 2 would attain site-specific, risk-based soil cleanup goals and would meet all chemical, location and action-specific ARARs. The cleanup goals for metals found in the contaminated material in the drum disposal area were derived from the New Jersey Direct Contact Soil Remediation Standard and are listed for each contaminant of concern in Table 7.

Tables 8.1 through 8.3 show which standards are ARARs and which are To-Be-Considered, including Resource Conservation and Recovery Act (RCRA) transportation and disposal requirements.

**Primary Balancing Criteria** - The next five criteria, criteria 3 through 7, are known as "primary balancing criteria". These criteria are factors with which tradeoffs between response measures are assessed so that the best option will be chosen, given site-specific data and conditions.

#### 3. Long-term Effectiveness and Permanence

A similar degree of long-term effectiveness and permanence refers to expected residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once clean-up levels have been met. This criterion includes the consideration of residual risk that will remain on-site following remediation and the adequacy and reliability of controls.

Alternative 2 would be permanent and effective since it removes the contaminated drum material and associated soils from the Site.

## 4. Reduction of Toxicity, Mobility, or Volume of contaminants through Treatment

Reduction of toxicity, mobility, or volume through treatment refers to the anticipated performance of the treatment technologies that may be included as part of a remedy.

Alternative 2 would reduce mobility of the contaminants in the drum material through excavation of contaminated drum material and disposal at a facility regulated under RCRA, and would reduce toxicity if treated at such a facility.

#### 5. Short-term Effectiveness

Short-term effectiveness addresses the period of time needed to implement the remedy and any adverse impacts that may be posed to workers, the community and the environment during construction and operation of the remedy until cleanup levels are achieved.

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Alternative 2 would present a potential short-term risk because of the potential for exposure to contaminated drum material during excavation and off-site transportation. Air monitoring, engineering controls and the appropriate use of personal protective equipment for workers would be effective means to protect the community and workers.

#### 6. Implementability

Implementability addresses the technical and administrative feasibility of a remedy from design through construction and operation. Factors such as availability of services and materials, administrative feasibility, and coordination with other governmental entities are also considered.

There are no administrative feasibility issues associated with Alternative 2. Alternative 2 may require water management during excavation activities. Resources for implementation of Alternative 2 are readily available and are, therefore, not expected to present a challenge to remedy implementation.

#### 7. **Cost**

Includes estimated capital and operation and maintenance costs, and net present-worth values.

The estimated present worth cost of Alternative 2 is \$200,000.

Modifying Criteria - The final two evaluation criteria, criteria 8 and 9, are called "modifying criteria" because new information or comments from the state or the community on the Proposed Plan may modify the preferred response measure or cause another response measure to be considered.

#### 8. State Acceptance

Indicates whether based on its review of the Remedial Investigation/Focused Feasibility Study reports and the Proposed Plan, the state supports, opposes, and/or has identified any reservations with the selected response measure.

The State of New Jersey concurs with EPA's Selected Remedy.

#### 9. Community Acceptance

Summarizes the public's general response to the response measures described in the Proposed Plan and the Remedial Investigation/Focused Feasibility Study reports. This assessment includes determining which of the response measures the community supports, opposes, and/or has reservations about.

EPA solicited input from the community on the remedial alternatives proposed for the drum disposal area at the Site. The community was supportive of EPA's Proposed Plan. Appendix III, The Responsiveness Summary, addresses the comments received from the public.

#### PRINCIPAL THREAT WASTE

Principal threat wastes are considered source materials, i.e., materials that include or contain hazardous substances, pollutants or contaminants that act as a reservoir for migration of contamination to groundwater, surface water, or as a source for direct exposure. At this Site, principal threat waste consists of source material which is defined as material that includes or contains hazardous substances, pollutants or contaminants that act as a source for direct exposure. The waste material to be addressed by the response action contains elevated levels of heavy metals which, if not remediated, would continue to be a direct exposure risk. Therefore, all identified principal threat wastes at the Site will be addressed by the Selected Remedy.

#### **SELECTED REMEDY**

Based upon consideration of the results of EPA's investigations at the Site, the requirements of CERCLA, the detailed analysis of the remedial alternatives and public comments, EPA has determined that Alternative 2 is the appropriate remedy to address drum material and associated soil contamination at the Site. This remedy best satisfies the requirements of CERCLA Section 121 and the NCP's nine evaluation criteria for remedial alternatives, 40 CFR §300.430 (e) (9). This remedy consists of the following:

 Excavation of drum material and surrounding soils with off-site disposal and/or treatment.

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Based on all available information, EPA and the State of New Jersey believe the Selected Remedy provides the best balance of trade-offs among the response measures with respect to the nine evaluation criteria. EPA believes that the Selected Remedy will be protective of human health and the environment, will comply with ARARs, will be cost effective, and will utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

Consistent with EPA Region 2's "Clean and Green" policy, EPA will evaluate the use of sustainable technologies and practices with respect to any remedial alternative selected for the Site.

### STATUTORY DETERMINATIONS

As previously noted, CERCLA Section 121(b)(1) mandates that a remedial action must be protective of human health and the environment, cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. CERCLA Section 121(b)(1) also establishes a preference for remedial actions that employ treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, or contaminants at a site. CERCLA Section 121(d) further specifies that a remedial action must attain a degree of cleanup that satisfies ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA Section 121(d)(4). For the reasons discussed below,

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EPA has determined that the Selected Remedy meets the requirements of CERCLA Section 121.

#### Protection of Human Health and the Environment

The Selected Remedy will adequately protect human health and the environment through excavation of drums and contaminated soils. The Selected Remedy will remove soils that will result in the reduction of exposure levels of direct contact to acceptable risk levels within EPA's generally acceptable risk range of 10<sup>-4</sup> to 10<sup>-6</sup>. Implementation of the Selected Remedy will not pose unacceptable short-term risks or adverse cross-media impacts. Contaminated groundwater is currently addressed under a ROD for Operable Unit 1.

#### Compliance with ARARs

The Selected Remedy would comply with the chemical- and location-specific ARARs identified in Tables 8.1 and 8.2. The potential federal and state action-specific ARARs for the Selected Remedy are identified in Table 8.3. The principal action-specific ARARs for the Selected Remedy are the requirements for characterization, transportation and proper disposal and/or treatment of the excavated material.

#### **Cost-Effectiveness**

In EPA's judgment, the Selected Remedy is cost-effective and represents reasonable value for the money to be spent. Overall effectiveness was evaluated by assessing three of the five balancing criteria in combination (long-term effectiveness and permanence; reduction in toxicity, mobility and volume through treatment; and short-term effectiveness). Overall effectiveness was then compared to costs to determine cost-effectiveness. The overall effectiveness of the Selected Remedy has been determined to be proportional to the costs, and the Selected Remedy, therefore, represents reasonable value for the money to be spent. The estimated present worth cost of the Selected Remedy is approximately \$200,000.

## Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

EPA has determined that the Selected Remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a practicable manner at the Site. EPA has determined that the Selected Remedy provides the better balance of trade-offs with respect to the five balancing criteria. The Selected Remedy satisfies the criteria for long-term effectiveness and permanence by removing drums and associated contaminated soils.

The Selected Remedy presents a potential short-term risk because of the potential for exposure associated with the excavation and transportation of drums and associated contaminated soils. However, any short-term risk will be mitigated through implementation of measures such as engineering controls, use of personal protective equipment, safe work practices and perimeter air monitoring.

The Selected Remedy is implementable since it employs standard technologies that are readily available.

#### Preference for Treatment as a Principal Element

Through the use of excavation and off-site disposal, including any required treatment, the Selected Remedy meets the statutory preference for the use of remedies that employ treatment that reduces toxicity, mobility or volume as a principal element to address the principal threats at the Site. The quantity of material is too small to warrant consideration of on-site treatment.

#### Five-Year Review Requirements

Because the remedy will not result in hazardous substances, pollutants, or contaminants remaining above levels that allow for unlimited use and unrestricted exposure, EPA anticipates that a five-year review will not be required for this drum and contaminated soil remedy.

#### **HIGHLIGHTS OF COMMUNITY PARTICIPATION**

The Proposed Plan and supporting documentation were released to the public for comment on April 13, 2011. These documents were made available to the public at the EPA Administrative Record File Room, 290 Broadway, 18<sup>th</sup> Floor, New York, New York and the Rockaway Township Free Public Library, Rockaway, NJ.

On April 13, 2011, EPA issued a notice in the Daily Record and local newspapers which contained information relevant to the public comment period for the Site, including the duration of the comment period, the date of the public meeting and availability of the administrative record. A Superfund announcement was mailed to individuals on a mailing list maintained by EPA for the Site. The public comment period began on April 13, 2011 and ended on May 13, 2011.

EPA held a public meeting on April 21, 2011 to explain the preferred remedy, excavation and off-site disposal and/or treatment of drum and related contaminated soil material. The purpose of the meeting was to inform local officials and interested citizens about the Superfund process, to discuss the Proposed Plan and receive comments on the Proposed Plan, and to respond to questions from area residents and other interested parties. Responses to the comments received at the public meeting and in writing during the public comment period are included in the Responsiveness Summary, attached as Appendix III to this ROD.

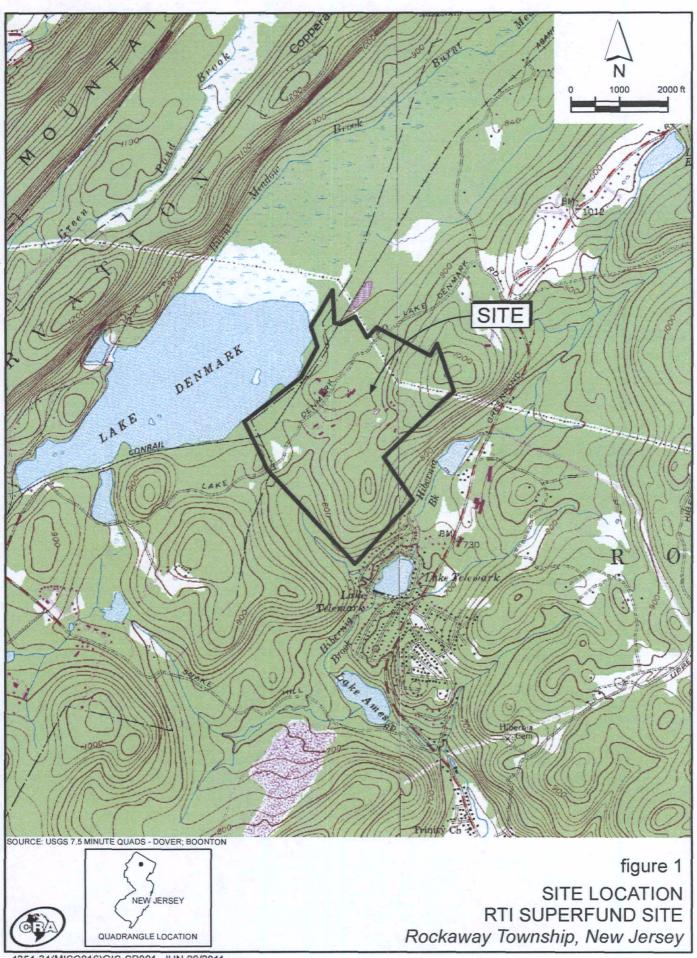
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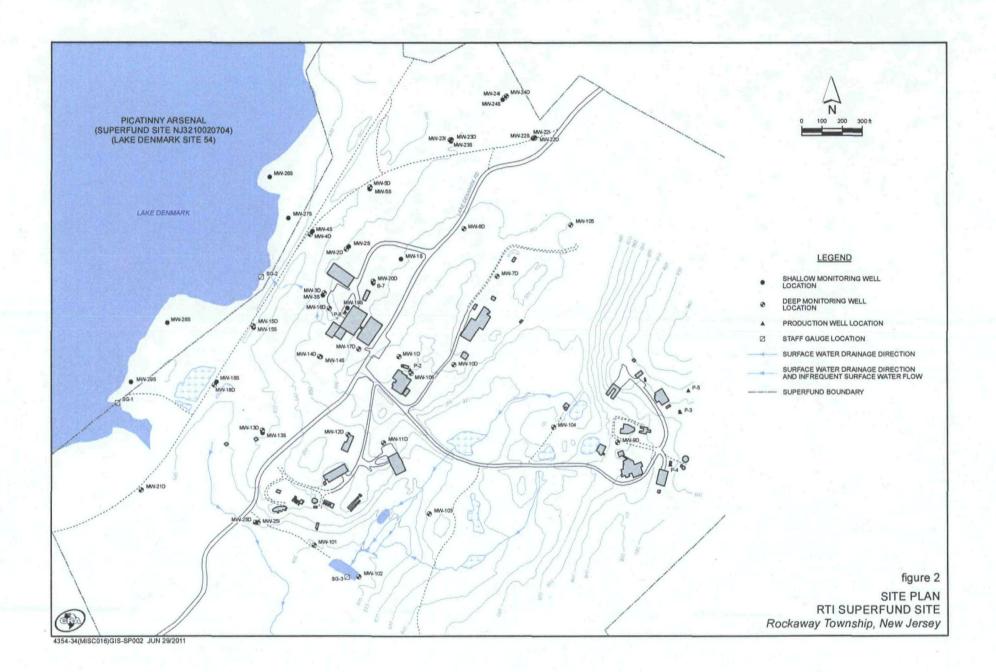
#### **DOCUMENTATION OF SIGNIFICANT CHANGES**

The Proposed Plan for the Site was released for public comment on April 13, 2011. The comment period closed on May 13, 2011. All verbal and written comments submitted during the public comment period were reviewed by EPA. Upon review of the comments, it was determined that no changes to the remedy, as originally identified in the Proposed Plan, were necessary.

## APPENDIX I

## Figures







## APPENDIX II

**Tables** 

#### TABLE 1 Summary of Chemicals of Concern and **Medium-Specific Exposure Point Concentrations**

Scenario Timeframe: Future Exposure Medium:

Drum material Drum material

Exposure Point	Chemical of Concern	Concentration Detected		Concentration Units	Frequency	Exposure Point Concentration	EPC Units	Statistical
		Min	Max	Units	of Detection	(EPC)	Units	Measure
	Aluminum	177	495,000	mg/kg	9/10	495,000	mg/kg	Max.
	Cobalt	3.1	65	mg/kg	9/10	65	mg/kg	Max.
	Copper	37	18,500	mg/kg	10/10	18,500	mg/kg	Max.
	Iron	17,000	689,000	mg/kg	10/10	689,000	mg/kg	Max.
Drum material	Manganese	195	3,400	mg/kg	10/10	3,400	mg/kg	Max.
	Nickel	12.8	4,860	mg/kg	10/10	4,860	mg/kg	Max.
,	Thallium	1.3	53	mg/kg	6/10	53	mg/kg	Max.
·	Arsenic	2.2	72	mg/kg	8/10	72	mg/kg	Max.

Max. - Maximum Detected Concentration

Scenario Timeframe: Future

Medium:

Surface soil

Exposure Medium:

Surface soil

Exposure Point	Chemical of	Concentration Detected		Concentration	Frequency	Exposure Point Concentration	EPC	Statistical	
	Concern	Min	Max	Units	ts of Detection (		Units	Measure	
	Cobalt	6.4	14	mg/kg	3/3	14	mg/kg	Max.	
Surface soil	Iron	16,000	21,000	mg/kg	3/3	21,000	mg/kg	Max.	
	Manganese	99	460	mg/kg	. 3/3	. 460	mg/kg	Max.	

Max. - Maximum Detected Concentration

#### Summary of Chemicals of Concern and Medium-Specific Exposure Point Concentrations

This table presents the chemicals of concern (COCs) and exposure point concentrations (EPCs) for each of the COCs detected in drum materials and surrounding surface soil (i.e., the concentration that will be used to estimate the exposure and risk from each COC). The table includes the range of concentrations detected for each COC, as well as the frequency of detection (i.e., the number of times the chemical was detected in the samples collected at the site), the EPC and how it was derived.

## TABLE 2 SELECTION OF EXPOSURE PATHWAYS

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Drum Area		Drum material	Residents	Adult/Child	Ingestion/Dermal/ Inhalation	Off-site	Quant	Future residents may be exposed to drum material.
		Drum Area	Didiii iliaterar	Industrial Worker	Adult	Ingestion/Dermal/ Inhalation	On-site	Quant	Industrial workers Future residents may be exposed to drum material.
	•	Diam ruca	Surface soil	Residents	Adult/Child	Ingestion/Dermal/ Inhalation	Off-site	Quant	Future residents may be exposed to surrounding surface soil.
			Surface soil	Industrial Worker	Adult	Ingestion/Dermal/ Inhalation	On-site	Quant	Industrial workers Future residents may be exposed to surrounding surface soil.

Quant = Quantitative risk analysis performed.

#### **Summary of Selection of Exposure Pathways**

The table describes the exposure pathways associated with the drum material and surrounding surface soil that were evaluated for the risk assessment, and the rationale for the inclusion of each pathway. Exposure media, exposure points, and characteristics of receptor populations are included.

TABLE 3

#### **Non-Cancer Toxicity Data Summary**

#### Pathway: Oral/Dermal

Chemical of Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Absorp. Efficiency (Dermal)	Adjusted RfD ( Dermal)	Adj. Dermal RfD Units	Primary Target Organ	Combined Uncertainty /Modifying Factors	Sources of RfD: Target Organ	Dates of RfD:
Aluminum	Chronic	1.0E+0	(mg/kd-day)	1	1.0E+0	(mg/kd-day)	CNS	100/3	PPRTV	7/26/01
Cobalt	Chronic	3.0E-4	(mg/kd-day)	· 1	3.0E-4	(mg/kd-day)	NA	10/1	PPRTV	
Copper	Chronic	4.0E-2	(mg/kd-day)	1	4.0E-2	(mg/kd-day)	GI	1000/1	HEAST	1997
Iron	NA	7.0E-1	(mg/kd-day)	1	7.0E-1	(mg/kd-day)	NA	NA/NA	PPRTV	6/16/05
Manganese	Chronic	2.4E-2	(mg/kd-day)	0.04	9.6E-4	(mg/kd-day)	CNS	1/1	iris	1/10/09
Nickel	Chronic	2.0E-2	(mg/kd-day)	0.04	8.0E-4	(mg/kd-day)	NA	300/1	IRIS	1/10/09
Thallium	Chronic	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### Pathway: Inhalation

Chemical of Concern	Chronic/ Subchronic	Inhalation RfC	Inhalation RfC Units	Inhalation RfD	Inhalation RfD Units	Primary Target Organ	Combined Uncertainty /Modifying Factors	Sources of RfD: Target Organ	Dates:
Aluminum	Chronic	5.0E-3	mg/m³	1.4E-3	mg/kg-day	Respiratory system	300/1	PPRTV	7/26/01
Cobalt	Chronic	6.0E-6	mg/m³	1.7E-6	mg/kg-day	Lungs	100/1	PPRTV	
Copper									
Iron									
Manganese	Chronic	5.0E-5	mg/m³	1.4E-5	mg/kg-day	CNS	1000/1	IRIS	1/10/09
Nickel						<del></del>			
Thallium									

#### Key

na: No information available

IRIS: Integrated Risk Information System, U.S. EPA NCEA. National Center for Environmental Assessment HEAST: Health Effects Assessment Summary Tables

EPA: Environmental Protection Agency

CNS: Central Nervous System

GI: Gastrointestinal tract

#### **Summary of Toxicity Assessment**

This table provides non-carcinogenic risk information which is relevant to the contaminants of concern in drum material and surface soil. When available, the chronic toxicity data have been used to develop oral reference doses (RfDs) and inhalation reference doses (RfDi).

#### **TABLE 4**

#### **Cancer Toxicity Data Summary**

#### Pathway: Oral/Dermal

Chemical of Concern	Oral Cancer Slope Factor	Units	Adjusted Cancer Slope Factor (for Dermal)	Slope Factor Units	Weight of Evidence/ Cancer Guideline Description	Source	Date
Arsenic	1.5E+00	(mg/kg/day) 1	1.5E+00	(mg/kg/day) <sup>-1</sup>	Α	ĪRIS	4/2004

#### Key:

CalEPA – California Environmental Protection Agency EPA – U.S. Environmental Protection Agency IRIS: Integrated Risk Information System. U.S. EPA na: No information available

#### **EPA Weight of Evidence:**

- A Human carcinogen
- B1 Probable Human Carcinogen-Indicates that limited human data are available
- B2 Probable Human Carcinogen-Indicates sufficient evidence in animals associated with the site and inadequate or no evidence in humans
- C Possible human carcinogen
- D Not classifiable as a human carcinogen
- E- Evidence of noncarcinogenicity 2A Probable human carcinogen
  - 2B Possible human carcinogen

#### **Summary of Toxicity Assessment**

This table provides carcinogenic risk information which is relevant to the contaminants of concern in drum material.

			TAF	BLE 5				
		Risk Char	acterization Si	ımmary -	Noncar	cinogens		`
Scenario Timet Receptor Popu Receptor Age:	lation:	Future Resident Adult/Child						
		,		Primary		Non-C	Carcinogenic Ris	sk
Medium	Exposure Medium	Exposure Point	Chemical of Concern	Target Organ	Ingestion	Dermal	Inhalation	Exposure Routes Total
			Aluminum	CNS	6.4			6.4
	4		Cobalt	NA	2.8			2.8
Drum			Copper	GI	6			6
material	Drum material	Drum material	Iron	NA	13			13
			Manganese	CNS	1.9			1.9
			Thallium	LDH	10			10
						Haza	rd Index Total	41.1
Scenario Timef Receptor Popu Receptor Age:		Future Resident Adult/Child						
			Chamical of	Primary		Non-	Carcinogenic Ri	sk
Medium	viedium   • • • • • • • • • • • • • • • • • •	Chemical of Concern	Target Organ	Ingestion	Dermal	Inhalation	Exposure Routes Total	
			Cobalt	NA	0.6			0.6
Surface soil	Surface soil	Surface soil .	Iron	NA	0.4			0.4
			Manganese	CNS	0.3			0.3
						Haza	rd Index Total	1.3
Scenario Time Receptor Popu Receptor Age:		Future Industrial Worker Adult						
	Exposure	Exposure	Chemical of	Primary		Non-C	Carcinogenic Ri	sk
Medium	Medium	Point	Concern	Target Organ	Ingestion	Dermal	Inhalation	Exposure Routes Total
			Aluminum	CNS	0.5			0.5
			Cobalt	ŅA	0.2			0.2
			Copper	. GI	0.5			0.5
Drum material	Drum material	Drum material	. Iron	` NA	1			1
			Manganese	CNS	0.2			0.2
			Nickel	. NA	0.07			0.07
				1	1			***

3.3

Hazard Index Total

Inhalation - Inhalation of dust particles

CNS – Central Nervous System
GI – Gastrointestinal Tract
LDH – lactate dehydrogenase activity
NA – not available

#### Summary of Risk Characterization - Non-Carcinogens

The table presents hazard quotients (HQs) for each route of exposure and the hazard index (sum of hazard quotients) for all routes of exposure for drum materials and surrounding surface soil. The Risk Assessment Guidance for Superfund states that, generally, a hazard index (HI) greater than I indicates the potential for adverse non-cancer effects.

#### TABLE 6

#### Risk Characterization Summary - Carcinogens

Scenario Timeframe:

Receptor Population: Receptor Age:

Future Resident Adult/Child

				Carcinogenic Risk			,
Medium	Exposure Medium	Exposure Point	Chemical of Concern	Ingestion	Dermal	Inhalation	Exposure Routes Total
Drum material	Drum material	Drum material	Arsenic	1.8E-04			1.8E-04
						Total Risk =	1.8E-04

Inhalation - Inhalation of dust particles

#### Summary of Risk Characterization - Carcinogens

The table presents cancer risks for drum materials for all routes of exposure combined. As stated in the National Contingency Plan, the point of departure is 10<sup>-6</sup> and the acceptable risk range for site-related exposure is 10<sup>-6</sup> to 10<sup>-4</sup>.

TABLE 7

# CLEANUP GOALS FOR RESIDENTS DRUM CONTENTS AREA SURFACE SOIL RTI SUPERFUND SITE, ROCKAWAY TOWNSHIP, NEW JERSEY

Receptor	coc	Maximum Concentration of the Drum Contents (mg/kg)	NJ Residential Direct Contact Soil Remediation Standard (mg/kg)
	Aluminum	495,000	78,000
	Arsenic	72	19
	Cobalt	. 65	1,600
Resident	Copper	18,500	3,100
	Iron	689,000	None
	Manganese	3,400	11,000
	Thallium	53	5 .

Notes:

None - No published value

#### TABLE 8.1

#### CHEMICAL-SPECIFIC ARARS AND TBCS RTI SUPERFUND SITE ROCKAWAY TOWNSHIP, NEW JERSEY

	Requirements Citat		Description	ARAR or TBC	Comment
Federal			<u> </u>	<u> </u>	
Soil Contamination	OSWER Guidance for Developing Ecological Soil Screening Levels	OSWER 9285.7.55	Guidance for deriving risk based eco- SSLs for soil contaminants of ecological concern.	TBC	May be used to screen soil contaminants to determine if further ecological study is warranted.
Soil Contamination	OSWER Soil Screening Guidance	OSWER 9285.7.55	Guidance for developing site specific soil screening levels.	TBC	May be used to identify areas of soil contamination.
State					
Soil Contamination	Remediation Standards Rule	NJAC 7:26D	Establishes minimum remediation standards for direct contact in ingestion/dermal exposure to soil.	ARAR	ARAR for soil remediation criteria where more stringent than federal risk standards.

#### LOCATION-SPECIFIC ARARS AND TBCS RTI SUPERFUND SITE ROCKAWAY TOWNSHIP, NEW JERSEY

	Requirements	Citation	Description	ARAR or TBC	Comment
Federal		<u>'</u>		·	
Floodplains	Executive Order 11988-	40 CFR 6, Subpart A;	Activities taking place within floodplains must be done to avoid	ТВС	Pertinent to activities that may occur within the floodplain.
	Floodplain Management	40 CFR 6.302	adverse impacts and preserve beneficial values in floodplains.		
Wetlands/Waters of the U.S.	Dredge and Fill in Wetlands	Section 404(b)(1) Guidelines	Discharge of dredge or fill material into wetlands must be evaluated based on specified criteria.	ARAR	Would be applicable to remediation activities impacting jurisdictional wetlands.
	Executive Order 11990- Protection of Wetlands	40 CFR Part 6 Subpart A	Activities taking place within wetlands must be done to avoid adverse impacts.	, TBC	Would be applicable to remediation activities impacting jurisdictional wetlands.
	Clean Water Act, Section 404(b)(1) Guidelines	40 CFR 230.10	Establishes criteria for evaluating impacts to waters of the US (including wetlands) and sets forth factors for considering mitigation measures.	ARAR	Would be applicable for placement of fill material into on-site wetlands.
Historic/Cultural Resources	National Historical Preservation Act	16 CFR 470	Establishes requirements for the identification and preservation of historic and cultural resources.	ARAR	Would be applicable to the management of historic or archeological artifacts identified on the Site.
Floodplains and Wetlands	Policy on Flood plains and Wetlands Assessments for CERCLA Actions	OSWER 9280.0-02, August 1985	Guidance for Implementing EO 11988 and EO 11990	TBC	Executive order implementation guidance.
Considering Wetlands at CERCLA Sites	Wetlands Protection at CERCLA sites	OSWER 9280.0-03	Guidance document to be used to evaluate impacts to wetlands at Superfund sites.	ТВС	Requirements should be considered when evaluating impacts to jurisdictional wetlands.
Critical Habitat	Endangered Species Act and Fish and Wildlife Coordination Act	16 CFR 661 and 16 U.S.C. 1531	Actions must be taken to conserve critical habitat in areas where there are endangered or threatened species.	ARAR	Requirements would be applicable if endangered or threatened species are identified on or adjacent to the site.

#### LOCATION-SPECIFIC ARARS AND TBCS RTI SUPERFUND SITE ROCKAWAY TOWNSHIP, NEW JERSEY

	Requirements	Citation	Description	ARAR or TBC	Comment
State					
Forests and wetlands	Highlands Water Protection and Planning Act	NJSA 13:20-1 et seq.	Regulates activities potentially impacting forests, wetlands, and surface water within the Highlands Preservation Area.	ARAR	Applicable for site activities occurring within the Highlands Preservation Area.
Floodplains	Flood Hazard Area Regulations	NJAC 7:13	Regulates the placemen of fill, grading, excavation and other disturbances within the defined flood hazard area/floodplain of rivers/streams.	ARAR	Applicable for site activities occurring within the flood hazard area or floodplain of on-site rivers/streams.
Wetlands	Freshwater Wetlands Protection Act Rules	NJAC 7:7A	Regulates the disturbance of alteration of freshwater wetlands and their respective buffers.	ARAR	Applicable for site activities disturbing freshwater wetlands and buffer areas.

#### ACTION-SPECIFIC ARARS AND TBCS RTI SUPERFUND SITE ROCKAWAY TOWNSHIP, NEW JERSEY

	Requirements	Citation	Description .	ARAR or TBC	Comment
Federal				<del></del>	
Generation, Management, and Treatment of Hazardous Waste	Identification and Listing of Hazardous Wastes	40 CFR Part 261	Outlines criteria for determining if a solid waste is a hazardous waste and is subject to regulation under 40 CFR Parts 260-266.	ARAR	These regulations do not set clean-up standards, but could apply during the management of excavated soils.
	Hazardous Waste Determinations	40 CFR Part 262.11	Generators must characterize their wastes to determine if the waste is hazardous by listing (40 CFR 261, Subpart D) by characteristic (40 CFR 261, Subpart C) or excluded from regulation (40 CFR 261.4).	ARAR	Excavated soils may be classified as characteristic or listed hazardous wastes. By-products or residues from the treatment of contaminated soils and groundwater must also be characterized.
	Manifesting	40 CFR 262, Subpart B	Generators must prepare a Hazardous Waste Manifest (EPA form 8700-22) for all off-site shipments of hazardous waste to disposal or treatment facilities.	ARAR	Would apply to all off-site shipments of RCRA hazardous wastes.
	Recordkeeping	40 CFR 262.40	Generators must retain copies of all hazardous waste manifests used for off-site disposal.	ARAR	Generator must retain copies of waste manifests for a minimum period of three years after shipment date.
	Labeling and Marking	40 CFR 262, Subpart C	Specifies EPA marking, labeling and container requirements for off-site disposal of hazardous waste.	ARAR	Pre-transportation requirements for off-site shipments of hazardous wastes.
	Accumulation Limitations	40 CFR Part 262.34	Allows generators of hazardous waste to store and treat hazardous waste at the generation site for up to 90 days in tanks, containers, and containment buildings without having to obtain a RCRA hazardous waste permit.	ARAR	Hazardous wastes may be stored for up to 90 days on-site without the need to meet storage permit substantive requirements.

#### ACTION-SPECIFIC ARARS AND TBCS RTI SUPERFUND SITE ROCKAWAY TOWNSHIP, NEW JERSEY

,	Requirements	Citation	Description	ARAR or TBC	Comment
	RCRA - Treatment, Storage and Disposal of Hazardous Waste	40 CFR 264/265	Specifies requirements for the operation of hazardous waste treatment, storage and disposal facilities.	ARAR	Applicable for on-site hazardous waste treatment and storage and disposal activities.
Transportation of Hazardous Waste	RCRA - Transportation of Hazardous Waste	40 CFR 263	Specifies requirements for transporters of hazardous waste to obtain an EPA identification number, and comply with manifest and spill response procedures.	ARAR	Applicable for the use of transporters for off-site disposal of hazardous waste.
	USDOT Hazardous Materials Transportation Requirements	40 CFR 171-180	Establishes classification, packaging and labeling requirements for shipments of hazardous materials.	ARAR	Applicable for the preparation of hazardous materials generated on-site for off-site shipment.
Land Disposal of Hazardous Waste	RCRA Subtitle C	40 CFR Section 6901 et seq.	Restricts land disposal of hazardous wastes that exceed specific criteria. Establishes Universal Treatment	ARAR	Wastes exhibiting a hazardous characteristic would need to be treated to meet UTS for all hazardous constituents
	Land Disposal Restrictions (LDRs)	40 CFR Part 268	Standards (UTSs) to which hazardous wastes must be treated to prior to land disposal. Phase IV rule revision establishes Alternate Treatment Standards for soils containing hazardous wastes.	-	present in the residuals prior to any upland or off-site disposal. Characteristically hazardous soils can be treated to meet the UTS standards or to meet the alternative treatment standards of RCRA hazardous soils.
Discharges to	Clean Water Act Effluent	40 CFR 40	Provides requirements for point	ARAR	Applicable for discharges of wastewaters
Surface Water	Guidelines and Standards Clean Water Act Stormwater Program	40 CFR 122	source discharges of pollutants.  Regulates the discharge of stormwater from industrial activities.	ARAR	to surface water bodies.  Applicable for point source discharges of stormwater to surface waters.
Analysis of Soil Waste	EPA Test Methods for Evaluation of Solid Waste	SW-846	Establishes analytical requirements for testing and evaluating solid/hazardous wastes.	TBC	Consider when testing waste samples.

#### ACTION-SPECIFIC ARARS AND TBCS RTI SUPERFUND SITE ROCKAWAY TOWNSHIP, NEW JERSEY

				T	
	Requirements	Citation	Description	ARAR or TBC	Comment
State			!		
Generation, Management, and Treatment of Hazardous Waste	Hazardous Waste Management Regulations	NJAC 7:26G	Provides requirements for the generation, accumulation, on-site management, and transportation of hazardous waste.	ARAR	Applicable for on-site management and disposal of hazardous waste.
	Soil Erosion and Sediment Control	NJAC 4:24	Requires the implementation of soil erosion and sediment control measures for activities disturbing over 5,000 square feet of land surface area.	ARAR	Applicable for site activities involving excavation, grading or other soil disturbance activities exceeding 5,000 square feet.
	Hazardous Waste Management Regulations	NJAC 7:26G	Provides requirements for the generation, accumulation, on-site management, and transportation of hazardous waste.	ARAR	Applicable for site activities involving excavation, grading or other soil disturbance activities exceeding 5,000 square feet.
Analysis of Soil Waste	Technical Requirements for Site Remediation	NJAC 7:26E	Specifies standards for delineation sampling and analysis at remediation sites.	ARAR	Relevant and appropriate for sampling and analysis of site contaminants.
Contaminated Soil Excavation	None		NJDEP Technical Guidance Document: Guidance Document for the Remediation of Contaminated Soils - January 1998.	ТВС	Provides guidance for the excavation, management, characterization, testing, and disposal of contaminated soils.
	None		NJDEP Technical Guidance Document: Field Sampling Procedures Manual August 2005	TBC	Provides guidance for the sampling and testing of soils in area delineation, confirmatory sampling, and waste characterization sampling

## APPENDIX III

Responsiveness Summary

# RESPONSIVENESS SUMMARY RADIATION TECHNOLOGY INCORPORORATED SUPERFUND SITE ROCKAWAY TOWNSHIP, MORRIS COUNTY, NEW JERSEY

This Responsiveness Summary summarizes the public's comments and concerns regarding the Proposed Plan and preferred cleanup alternative to address contamination at the Radiation Technology Inc. Superfund Site (the Site). This summary also presents the U.S. Environmental Protection Agency's (EPA's) responses to the public's comments and concerns. At the time of the public comment period, April 13, 2011 to May 13, 2011, EPA proposed a preferred alternative for remediating soil at the Site. Subsequently, EPA has considered all comments received and summarized them in this document. Based on the consideration of all comments, EPA has developed a final decision for the selection of a remedial alternative for the Site.

This Responsiveness Summary is divided into the following sections:

- I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS: This section provides the history of the community involvement and interests regarding the Site.
- II. COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS, AND RESPONSES: This section contains summaries of oral comments received by EPA at the public meeting. EPA also received one written comment on the Proposed Plan during the public comment period.
- III. ATTACHMENTS: The last section of this Responsiveness Summary provides attachments that document public participation in the remedy-selection process for this Site including:

Attachment A: the Proposed Plan that was distributed to the public for review and comment;

Attachment B: the public notice that appeared in the *The Daily Record*;

Attachment C: the EPA Press Release announcing EPA plans to Remove Contaminated Drums from the Radiation Technology Inc. Site; and

Attachment D: the meeting agenda and transcript of the public meeting.

#### I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

• On April 21, 2011, EPA held a public meeting to present the preferred remedial alternative for a waste/drum storage area, designated Operable Unit 2 (OU2), at the Rockaway Township Municipal Building, Rockaway, New Jersey. The meeting was attended by two residents and one representative from Picatinny

Arsenal. Previously, EPA has held numerous meetings with local officials to update them on the status of the Site. In addition, EPA meets annually at the Site with Congressman Rodney Frelinghuysen and local and state officials to discuss the Site. Although interest in the Site by local residents has been generally low, EPA has provided the community with fact sheets and has scheduled public information sessions near the Site. Additionally, EPA has had public outreach during residential well sampling events.

II. SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND AGENCY RESPONSES

During the April 21, 2011 public meeting, comments from the public touched upon a number of topics of concern to stakeholders including: issues relating to the remedy for the waste/drum storage area, source area investigation and schedule, remediation activities, and other site-related issues. A summary of the comments received during the April 21, 2011 public meeting and EPA's responses follows.

#### Issues relating to remedy for the waste/drum storage area

1. <u>Comment</u>: A stakeholder asked why it took five years from Remedial Investigation (RI) to the conclusion of the Focused Feasibility Study.

<u>EPA Response</u>: Since the Site is very large, it was necessary to take many samples. Approximately 130 locations were sampled. Most of the locations could have had operations that could have contributed to contaminating the groundwater.

2. <u>Comment</u>: Was the RI intended to only identify sources that contributed to the groundwater contamination?

<u>EPA Response</u>: Primarily. The RI was performed to identify sources that contributed to the groundwater contamination.

3. <u>Comment</u>: Are the drums in the ground still causing contamination of the Site?

<u>EPA Response</u>: The drums and surrounding soils were sampled to see if the contents of the drums were the same as the contamination in the groundwater. The sampling showed that the waste/drum area contained heavy metals. EPA has not seen heavy metals in the groundwater. However, the levels of heavy metals found in the waste/drum disposal area are above the state direct contact standards, and the drums and surrounding soils require excavation.

4. <u>Comment</u>: Did you sample the drums themselves?

<u>EPA Response</u>: The drums are extremely corroded, so along with the drums, the material outside of the drums or on top of the drums were sampled. We tried to target the areas where we saw remnants of drums.

5. <u>Comment</u>: When the New Jersey Department of Environmental Protection put in wells, did any of these drums contain investigated-derived waste?

<u>EPA Response</u>: No, those drums were stored in another area on-site and have since been disposed of off-site.

6. <u>Comment</u>: Are the drums from Thiokol operations?

<u>EPA Response</u>: We cannot tell when or by whom the drums were placed as the drums are extremely corroded. Most of the drums were just empty or in pieces.

7. Comment: Were more drums present than what you could visibly see from the trail?

EPA Response: There were not a lot of drums; just wood and construction debris.

8. Comment: If you cannot find the source, how can you remediate the groundwater?

<u>EPA Response</u>: We installed many wells to investigate the groundwater, but that is a different phase of work, and is not part of this remedy.

9. Comment: Does the contaminated groundwater flow into Lake Denmark?

<u>EPA Response</u>: All the information that we have gathered shows that the natural flow of the groundwater is toward Lake Denmark. However, EPA has not sampled the lake for site-related contamination.

10. <u>Comment</u>: Is the contaminated water eventually travelling into the Rockaway River?

<u>EPA Response</u>: The water flows from Lake Denmark, into Lake Picatinny, to Green Pond Brook and finally into the Rockaway River. Picatinny Arsenal samples Green Pond Brook before it leaves Lake Picatinny and has not found any volatile organic compound (VOC) contamination.

11. <u>Comment</u>: According to the risk assessment, residential use is the only risk. Don't you consider the state regulation that you shall not have soil contamination above industrial levels?

<u>EPA Response:</u> The risk assessment deemed that the Site is acceptable for industrial use, but not for residential use. The reason for this remedy is that the metals exceeded the risk of direct contact standards for a future resident.

12. <u>Comment</u>: When did EPA take over the Site from the state and why were you willing to take on the Site cleanup?

<u>EPA Response</u>: Following a request from NJDEP, EPA assumed the lead for the Site in 2001. EPA was willing to assume the lead because we believed we could reach an agreement with a PRP to perform the remedial work. Negotiations with ATK resulted in a consent decree in 2004 in which ATK agreed to conduct remedial activities at the Site.

#### **Residential Well Issues**

13. <u>Comment</u>: Is the manganese in my well a naturally occurring thing?

<u>EPA Response</u>: Yes, we have found elevated levels of manganese throughout the Site.

14. Comment: Can our home wells be sampled to make sure they are safe?

<u>EPA Response</u>: We will review the recent groundwater sampling data and discuss if we need to expand the residential well sampling effort.

#### **Remediation Activities**

15. Comment: You are only concentrating on the area behind the Sterigenics facility?

<u>EPA Response</u>: This was the only area of contaminated soil found during the investigation but it does not appear to be a source of the groundwater contamination. However, the soil does exceed state direct contact standards and needs to be addressed.

16. Comment: Who is funding this soil remedy?

<u>EPA Response</u>: Alliant Techsystems, Inc., as the potentially responsible party, will pay for the soil remedy. EPA will provide oversight of the implementation of the remedy.

17. <u>Comment</u>: The purpose of this remedy is to decide whether to do something or nothing with the waste/drum disposal area?

EPA Response: EPA always has to compare a no action remedy against any other alternatives as a baseline.

18. Comment: Was consideration given to putting a fence around the area?

<u>EPA Response</u>: EPA did not consider a fence because the soil will need to be remediated as the contaminant levels exceeds state direct contact standards.

19. Comment: When is the waste/drum disposal area cleanup expected to occur?

<u>EPA Response</u>: Once the Record of Decision is signed, EPA will need to negotiate an agreement with Alliant Techsystems, Inc. to actually do the work. Excavation activities should occur in spring 2012.

#### **Other Site-Related Issues**

20. <u>Comment</u>: Is there a plan to sample the water in the Lake Denmark interface or below the sediment?

<u>EPA Response</u>: That is something that EPA will certainly evaluate. Right now, we will evaluate the latest round of groundwater sampling, including some wells installed near Lake Denmark, and see if there is a need to expand the sampling any further.

21. <u>Comment</u>: Does the contaminated soil travel? Might it be travelling up towards our homes? Do we have to worry about growing vegetables or anything like that?

<u>EPA Response</u>: From what we understand, the soil contamination at the Site stems from the operations that happened there previously. The soil contamination in this case is heavy metals which would either move down to the groundwater which it has not or stay in place, which it has.

#### Written Comments

22. Comment: Was sampling done for perchlorate?

EPA Response: Yes.

23. <u>Comment</u>: What levels of perchlorate were detected in soils, groundwater and nearby wells and what action levels did EPA evaluate these results against?

#### **EPA Response**:

Soils in OU2: the highest detected was 38.9 micrograms per kilogram (ug/kg).

Sediments: the highest detected was 69.9 ug/kg. Soils/sediments screening value: 5,500 ug/kg

Surface Water: highest detected was 6.25 micrograms per Liter (ug/L).

Surface water screening value: 26 ug/L

Groundwater: highest detected was 324 ug/L.

**Groundwater screening value**: At the time of the review, in 2009, a groundwater standard had not been established for perchlorate. NJDEP uses 5 ug/L, and EPA uses 15 ug/L until a promulgated standard can be determined.

24. <u>Comment</u>: Does EPA consider New Jersey's statutory individual lifetime cancer risk level of 1x 10<sup>-6</sup> an ARAR?

EPA Response: No. ARARs are Applicable or Relevant and Appropriate Requirements, and CERCLA requires that remedial actions attain or waive Federal environmental ARARs or more stringent State environmental ARARs upon completion of a remedial action. ARARs are chemical-specific, action-specific and location-specific, so a single risk level cannot be the basis for all ARARs. The ARAR is usually based on the most sensitive health effect, which is not always the cancer risk. Consistent with the National Contingency Plan, if estimated risks are above EPA's actionable levels (noncancer hazard greater than 1 or an excess lifetime cancer risk above 1 x 10(-4)[or one in ten thousand]), then a response may be needed to mitigate those risks. If so, remediation goals are identified, using an excess lifetime cancer risk of 1x10(-6) [or one in one million] as the point of departure for cleanup.

ATTACHMENT A PROPOSED PLAN



## Superfund Program Proposed Plan

#### U.S. Environmental Protection Agency, Region II

#### Radiation Technology, Inc. Superfund Site

2011

#### EPA ANNOUNCES PROPOSED PLAN

This Proposed Plan identifies the U.S. Environmental Protection Agency's (EPA's) preferred alternative to address a waste/drum disposal area at the Radiation Technology, Inc. (RTI) Superfund Site (Site), located in Morris County, New Jersey. EPA's preferred alternative is Alternative 2, excavation of drum material with off-Site disposal and/or treatment.

This Proposed Plan includes summaries of the cleanup alternatives evaluated for use at the Site. This document is issued by EPA, the lead agency for Site activities.

EPA is issuing this document as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), and Section 300.435 (c)(2)(ii) of the National Contingency Plan (NCP). This document summarizes information that can be found in detail in the Administrative Record file for this Site. This Proposed Plan is being provided to inform the public of EPA's preferred remedy, and to solicit public comments pertaining to the preferred alternative. The remedy described in this Proposed Plan is the preferred alternative for the Site. Changes to the preferred alternative, or a change from the preferred alternative to another alternative, may be made if public comments or additional data indicate that such a change will result in a more appropriate remedial action. The final decision regarding the selected remedy will be made after EPA has taken all public comments into consideration. The State of New Jersey is currently evaluating EPA's Preferred Alternative in this Proposed Plan. The public is encouraged to review and comment on the preferred alternative considered by EPA in this Proposed Plan.

#### **COMMUNITY PARTICIPATION**

EPA and the New Jersey Department of Environmental Protection (NJDEP) provide information regarding the remediation of the RTI Site to the public through public meetings and the Administrative Record file for the Site. EPA and the State of New Jersey rely on public input to ensure that the public will have a more comprehensive

#### MARK YOUR CALENDAR

#### PUBLIC COMMENT PERIOD:

April 13, 2011 - May 13, 2011

U.S. EPA will accept written comments on the Proposed Plan during the public comment period.

PUBLIC MEETING: April 21, 2011

U.S. EPA will hold a public meeting to explain the preferred remedy in the Proposed Plan. Oral and written comments will also be accepted at the meeting. The meeting will be held at the Rockaway Township Municipal Building, located at 65 Mount Hope Road, Rockaway, New Jersey at 7:00pm

For more information, see the Administrative Record at the following locations:

U.S. EPA Records Center, Region II 290 Broadway, 18<sup>th</sup> Floor New York, New York 10007-1866 (212) 637-3261 Hours: Monday - Friday 9:00 am to 5:00 pm

Rockaway Township Free Public Library 61 Mount Hope Road Rockaway, New Jersey 08341 (973) 627-2344

Hours: Monday - Friday 9 am to 9 pm

understanding of the Site and the Superfund activities that have been conducted.

The dates for the public comment period, the date, location and time of the public meeting, and the locations of the Administrative Record files, are provided on the front page of this Proposed Plan. This Proposed Plan and the supporting documents are being made available to the public during the public comment period. Written comments on the Proposed Plan will be welcomed

through May 13, 2011 and, if received by that date, will be considered by EPA before it issues the Record of Decision (ROD), which will formally document the selected remedy. All written comments should be addressed to:

Mr. Brian Quinn
Remedial Project Manager
U.S. Environmental Protection Agency – Region 2
290 Broadway – 19<sup>th</sup> Floor
New York, N.Y. 10007-1866

The selected remedy will be documented in the ROD only after consideration of all comments received. A public meeting has been scheduled for April 21, 2011 at 7:00 pm at the Rockaway Township Municipal Building.

#### SITE HISTORY

#### Background/Site Characteristics

The Site is located in a predominantly rural area in the western portion of Morris County, New Jersey, at 108 Lake Denmark Road in the Township of Rockaway. It is situated approximately five miles north of Exit 37 of Interstate 80.

The entire Site consists of approximately 263 acres of land which is comprised of three distinct areas: the active former RTI complex (15 acres) the former Rockaway Industrial Park (RIP) (65 acres), and undeveloped land (183 acres) adjacent to those areas. Past activities at the Site have included the testing and development of rocket motors and propellants. More recent operations included irradiating food, cosmetics, and medical devices to sterilize them. Buildings in the RIP area have been vacant since 2006 and are in various stages of disrepair and/or disintegration. Only one business, Sterigenics International, occupies buildings on the former RTI portion of the Site.

Beginning in 1980, NJDEP and the Rockaway Township Health Department conducted numerous inspections of the Site. These inspections revealed that drums containing solvents and other organic chemicals were being improperly stored and disposed of by the owner and operator of Site, Radiation Technology, Inc.

In 1981, the Rockaway Township Health Department sampled two on-Site water supply wells. Results indicated that volatile organic compounds (VOCs) had contaminated the groundwater supplying these wells. They subsequently were condemned by the New Jersey Department of Health and the NJDEP, and were closed.

On July 6, 1983, NJDEP and RTI signed a judicial Consent Order, which required RTI to install ground water monitoring wells and collect samples for VOC analyses to determine the source of the contamination.

In August 1984, NJDEP issued a Site Evaluation Report with the objective of identifying sources of groundwater contamination at and around the RTI property. The results of the well sampling and analysis indicated that elevated levels of VOCs were present in the samples analyzed. Subsequently, the Site was placed on the National Priorities List (NPL) of Superfund sites in September 1984.

On March 12, 1987, RTI entered into an Administrative Order on Consent (AOC) with NJDEP and agreed to pay the cost of an investigation into the nature and extent of contamination at the Site. On December 12, 1992, RTI signed a second AOC with NJDEP, agreeing to perform some cleanup activities at the Site. In May 1993, under NJDEP supervision, RTI removed and disposed of abandoned tanks and drums off Site resulting from the above investigation. On May 9, 1994, NJDEP issued a ROD, selecting groundwater extraction and treatment as the remedy for the most-contaminated portion of the Site.

The following remedial action objectives (RAOs) were established for the groundwater at the Site:

- Prevent potential human exposure to contaminants in the deep aquifer groundwater which pose future carcinogenic risk to human health in excess of 10<sup>-6</sup> and/or which have a hazard index greater than 1.
- Control the spread of groundwater contamination.

These RAOs would be achieved by the following remedial action components:

- Treatment of the groundwater via extraction of the more highly contaminated groundwater and natural attenuation of residual groundwater contamination;
- Reinjection of the treated groundwater; and
- Appropriate environmental monitoring to ensure the effectiveness of the remedy.

In addition, NJDEP and EPA acknowledged the need for subsequent investigations of potential sources of

groundwater contamination at the Site. This Proposed Plan focuses on those investigations.

#### **Remedial Investigation**

In January 2001, EPA assumed the lead for the Site at NJDEP's request. In May 2004, EPA negotiated a Consent Decree with Alliant Techsystems, Inc. (ATK) (a successor to Thiokol, a former owner and operator of the Site), to undertake the groundwater cleanup. In September 2004 and April 2005, ATK conducted groundwater sampling as part of a preliminary design investigation to obtain a better understanding of the groundwater contamination conditions and to confirm the viability of the groundwater remedy selected in the 1994 ROD. The results indicated that further sampling would be necessary and ATK recommended that additional monitoring wells be installed.

In October 2004, ATK and EPA entered into an AOC to investigate potential sources of groundwater contamination at the Site. ATK conducted a preliminary assessment of a waste/drum disposal area located within the active former RTI complex. Samples were taken from deteriorated drums and adjacent soils. The results of the sampling indicated that elevated concentrations of metals (aluminum (495,000 milligrams per kilogram (mg/kg)), arsenic (72 mg/kg), cobalt (65 mg/kg), copper (18,500 mg/kg), iron (689,000 mg/kg), manganese (3,400 mg/kg), and thallium (53 mg/kg)) were found in deteriorated drum material.

Additionally, EPA identified asbestos-containing material covering piping along a fence in a portion of the Site. EPA removed the material in November 2006.

In early 2007, EPA was notified by the U.S. Army Military Munitions Response Program that a portion of the Site is within the boundaries of earlier projectile practice firing over Lake Denmark from the Picatinny Arsenal. As a result, the potential exists for the presence of unexploded ordnance. An initial inspection conducted in the summer of 2007 by the U.S. Army concluded that no immediate actions were necessary. However, ordnance-avoidance procedures were recommended for certain field activities at the Site. In May 2008, EPA and ATK received information from the U.S. Army on the types of materials that should be avoided.

In July 2008, EPA approved ATK's proposal to investigate potentially contaminated source areas on the Site. In September and November 2008, ATK collected 130 soil, surface water, sediment, waste pit, and tank samples to investigate potential source(s) of

contamination to the groundwater. The results of the field activities indicate that the deteriorated drum material in a portion of the Site referred to as the waste/drum disposal area would need to be addressed.

#### WHAT IS A "PRINCIPAL THREAT"?

The NCP establishes an expectation that EPA will use treatment to address the principal threats posed by a site wherever practicable (NCP Section 300.430(a)(1)(iii)(A)). The "principal threat" concept is applied to the characterization of "source materials" at a Superfund site. A source material is material that includes or contains hazardous substances. pollutants or contaminants that act as a reservoir for migration of contamination to ground water, surface water or air, or acts as a source for direct exposure. Contaminated ground water generally is not considered to be a source material; however, Non-Aqueous Phase Liquids (NAPLs) in ground water may be viewed as source material. Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained, or would present a significant risk to human health or the environment should exposure occur. The decision to treat these wastes is made on a site-specific basis through a detailed analysis of the alternatives using the nine remedy selection criteria This analysis provides a basis for making a statutory finding that the remedy employs treatment as a principal element.

#### SCOPE AND ROLE OF THIS ACTION

In order to better manage Superfund sites, work is often divided into phases, or operable units (OUs). OU1 addresses groundwater at the Site. This action, referred to as OU2 which involves, excavation of drum material with off-Site disposal and/or treatment, is not intended to be the final action for this Site. EPA is currently conducting other activities, such as building investigations, which will be the focus of a third OU.

This Proposed Plan summarizes the remedial alternative analyzed in the Focused Feasibility Study (FFS), and discusses the preferred alternative for addressing the on-Site waste/drum disposal area which could pose a threat to human health and the environment.

#### **SUMMARY OF SITE RISKS**

As part of the RI/FS, a baseline risk assessment was conducted to estimate the current and future effects of contaminants on human health and the environment. A baseline risk assessment is an analysis of the potential adverse human health and ecological effects of releases of hazardous substances from a site in the absence of any actions or controls to mitigate such releases, under current and future land uses. The baseline risk assessment includes a human health risk assessment and an ecological risk assessment. It provides the basis for taking action and identifies the contaminants and exposure pathways that need to be addressed by the

remedial action. The present land use within the Site is generally considered light industrial and commercial, although there are also significant portions of the Site that are undeveloped. It is anticipated that the future land use for this area will remain consistent with its current use.

A four-step human health risk assessment process was used for assessing site-related cancer risks and noncancer health hazards. The four-step process is comprised of: Hazard Identification of Chemicals of Potential Concern (COPCs), Exposure Assessment, Toxicity Assessment, and Risk Characterization (see adjoining box "What is Risk and How is it Calculated").

A baseline risk assessment is an analysis of the potential adverse human health and ecological effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate the releases under current and future land uses. The following areas: South Stand, P-2, RTI, East Stand, and Drum Disposal were evaluated in the baseline risk assessment. While contaminants were found in the various areas, with the exception of the Drum Disposal Area, all of the areas investigated fell within EPA's acceptable risk range.

#### Human Health Risk Assessment

Risks and hazards were evaluated for current and future exposure to drum materials and soil from around the drum material. The potential populations evaluated for exposure included adult commercial workers and future residents. The hazard indices for the commercial worker scenario (3.1) and future resident scenario (42) from exposure to drum materials were above the acceptable value of 1.0. Additionally, the cancer risk for potential future residents was above the EPA acceptable risk range of 10<sup>-6</sup> to 10<sup>-4</sup>. The hazard index for exposure to surface soil for future potential residents was also above the acceptable value of 1.

#### What is Risk and How is it Calculated?

A Superfund human health risk assessment is an analysis of the potential adverse health effects caused by hazardous substances released from a site in the absence of any actions to control or mitigate these releases; it estimates the "baseline risk" in the absence of any remedial actions at the site under current and future land uses. To estimate this baseline risk at a Superfund site, a four-step process utilized for assessing site-related human health risk for reasonable maximum exposure (RME) scenarios.

Hazard Identification: The hazard identification step identifies the contaminants of potential concern (COPC) in groundwater for this specific Site. Factors considered include: toxicity, frequency of occurrence, fate and transport of the contaminants in the environment, concentrations of the contaminants in specific media, mobility, persistence, and bioaccumulation.

Exposure Assessment: In this step, the different exposure pathways through which people might be exposed to the contaminants identified in the previous step are evaluated. Examples of exposure pathways for a groundwater site include ingestion of groundwater and inhalation of volatiles while showering. Factors relating to the exposure assessment include but are not limited to the concentrations that people might be exposed to and the potential frequency and duration of exposure. Using these factors, a RME scenario, which portrays the highest level of human exposure that could reasonably be expected to occur, is calculated.

Toxicity Assessment: The toxicity step determines the types of adverse health effects associated with exposures to chemicals or radionuclides, and the relationship between the magnitude of exposure (dose) and severity of adverse effects (response). Potential health effects are chemical or radionuclide-specific and may include the risk of developing cancer over a lifetime or other non-cancer health effects such as changes in the normal functions of organs within the body (e.g., changes in the effectiveness of the immune system). Some chemicals are capable of causing both cancer and non-cancer health effects.

Risk Characterization: This step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site risks. Exposures are evaluated based on the potential risk for developing cancer and the potential for non-cancer health hazards. The likelihood of an individual developing cancer is expressed as a probability. For example, a 10<sup>-4</sup> cancer risk means a "one in ten thousand excess cancer risk"; or one additional cancer may be seen in a population of 10,000 people as a result of exposure to site contaminants under the conditions explained in the exposure assessment. Current federal Superfund guidelines for acceptable exposures are an individual lifetime excess cancer risk in the range of 10<sup>-4</sup> to 10<sup>-6</sup> (corresponding to a one-in-ten-thousand to a one-in-amillion excess cancer risk). For non-cancer health effects, a "Hazard Index" (HI) is calculated. An HI represents the sum of the individual exposure levels compared to their corresponding Reference Doses (RfDs). The key concept for a non-cancer Hazard Index is that a "threshold level" (measured as an HI of 1) exists below which noncancer health effects are not expected to occur.

The following exposure pathway is considered to be of potential significance in the baseline risk assessment:

• Exposure to the drum material.

Summary of Hazards and Risks Associated with the

Drum Disposal Area.

Receptor	Hazard Index	Cancer Risk
Drum Material ·		
Commercial Worker - Adult	3.1	5.0E-05
Resident - Adult/Child	42	2.1E-04
Soil		
Commercial Worker - Adult	<1	<1.0E-06
Resident - Adult/Child	1.3	6.0E-06

The COCs identified for the Drum Disposal Area include: aluminum, arsenic, cobalt, copper, iron, manganese, and thallium.

#### Ecological Risk Assessment

A screening-level ecological risk assessment was conducted to evaluate the potential for ecological effects from exposure to surface soil, surface water and sediment. Surface soil, surface water, and sediment concentrations were compared to ecological screening values as an indicator of the potential for adverse effects to ecological receptors. Exposure was also evaluated for terrestrial and aquatic wildlife species through the ingestion of prey and direct soil ingestion.

A complete summary of all exposure scenarios can be found in the screening level ecological risk assessment (SLERA). In summary, the results of the SLERA indicate that concentrations of contaminants detected in surface soil, surface water, and sediment at the Site are unlikely to pose any unacceptable risks to terrestrial or aquatic ecological receptors at the Site.

#### REMEDIAL ACTION OBJECTIVES

The following remedial action objective (RAO) has been established for the waste/drum disposal area of the Site:

 Reduce or eliminate direct contact risks associated with contaminated drum material and associated contaminated soil to levels protective for residential use:

To achieve this RAO, preliminary remediation goals (PRGs) were developed for the Site based on state

promulgated applicable or relevant and appropriate requirements (ARARs).

The following clean-up goals are based on NJDEP's residential soil remediation standards.

Contaminant	PRGs (mg/kg)	
Aluminum	77,344	
Cobalt	25	
Copper	3,083	
Iron	82,600	
Manganese	3,640	
Thallium	5	
Arsenic	19	

#### **DESCRIPTION OF ALTERNATIVES**

Do to the limited extent of the contaminated area, EPA considered a containment remedy during the FFS planning phase, but determined it was not appropriate under the circumstances and eliminated it from further consideration.

#### Alternative 1: No action

Estimated Capital Cost: \$0 Estimated Annual O&M Cost: \$0 Estimated Present Worth Cost: \$0

Estimated Construction Time frame: None

Regulations governing the Superfund program require that a "no action" alternative be evaluated to establish a baseline for comparison to other alternatives. Under this alternative, EPA would take no action at the Site to prevent exposure to contaminated drum material. Since this alternative would result in contaminants remaining on the Site above levels that would not allow for unlimited use, a review of the Site at least every five years would be required.

## Alternative 2: Excavation of Drum Material, with Off-Site Disposal and/or Treatment

Estimated Capital Cost: \$196,000 Estimated Annual O & M Cost: \$4,000 Estimated Present Worth Cost: \$200,000 Estimated Construction Time frame: 1 month Estimated Time to Achieve RAOs: 1 month

Under this alternative, approximately 100 cubic yards of contaminated drum material in the waste/drum disposal area would be excavated and transported off-Site for treatment and/or disposal. Following excavation of the

drum material, soils adjacent to the excavated drum material will be sampled to determine if they are above the PRGs. If the sampling results indicate that the soils are the above PRGs, they will be excavated and treated and/or disposed of off Site. In addition, any debris that is comingled with the contaminated drum material will be removed, treated and/or disposed of off Site. Following source remediation, areas disturbed by excavation activities will be re-vegetated and restored to pre-excavation conditions.

#### **EVALUATING REMEDIAL ALTERNATIVES**

Nine criteria are used to evaluate remediation alternatives individually and against each other in order to select the best alternative. This section of the Proposed Plan profiles the relative performance of the alternatives against the nine criteria. The nine evaluation criteria are discussed below.

#### **COMPARATIVE ANALYSIS**

### 1. Overall Protectiveness of Human Health and the Environment

Alternative 1, "no action," will not provide adequate protection of human health and the environment. Alternative 2 (excavation of drum material with off-Site disposal and/or treatment) will remove the contaminated material in the drum disposal area. Therefore, Alternative 2 is considered to be protective of human health and the environment.

Because the "no action" alternative is not protective of human health and the environment, it was eliminated from consideration under the remaining eight criteria.

#### 2. Compliance with the ARARs

Actions taken at any Superfund site must meet all ARARs for federal and state law or provide grounds for invoking a waiver of these requirements. These include chemical-specific, location-specific, and action-specific ARARs. Alternative 2 would attain site-specific, risk-based soil PRGs and would meet all chemical,-location-and action-specific ARARs.

#### 3. Long-term Effectiveness and Permanence

Alternative 2 would be permanent and effective since it removes the contaminated drum material from the Site.

### EVALUATION CRITERIA FOR SUPERFUND REMEDIAL ALTERNATIVES

Overall Protectiveness of Human Health and the Environment determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

Compliance with ARARs evaluates whether the alternative meets Federal and State environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.

Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.

Implementability considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

Cost includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

State/Support Agency Acceptance considers whether the State agrees with the EPA's analyses and recommendations, as described in the RI/FS and Proposed Plan.

Community Acceptance considers whether the local community agrees with EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

## 4. Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment

Alternative 2 would reduce mobility of the contaminants in the drum material through excavation of contaminated drum material and disposal at an off-Site facility, and would reduce toxicity if treated off Site.

#### 5. Short-Term Effectiveness

Alternative 2 would present short-term risk because of the potential for exposure to contaminated drum material during excavation and off-Site transportation. Air monitoring, engineering controls and the appropriate use of personal protective equipment for workers would be effective means to protect the community and workers.

#### 6. Implementability

Alternative 2 may require excavation support and dewatering systems during the contaminated drum

material excavation activities. Equipment and vendors for implementation of Alternative 2 are readily available and are, therefore, not expected to present a challenge to remedy implementation.

#### 7. Cost

The estimated present worth cost of Alternatives 2 is \$200,000.

#### 8. State/Support Agency Acceptance

The State of New Jersey is currently evaluating EPA's Preferred Alternative in this Proposed Plan.

#### 9. Community Acceptance

EPA will evaluate community acceptance of the Preferred Alternative after the public comment period ends. EPA will discuss community acceptance in the ROD, the document that formalizes the selection of the remedy for the Site.

### SUMMARY OF THE PREFERRED ALTERNATIVE

The proposed remedy for the cleanup of contaminated drum material at the Site is Alternative 2, (excavation of contaminated drum material with off-Site disposal and/or treatment).

EPA anticipates that all of the contaminated drum material exceeding PRGs will be removed from the drum disposal area. Following excavation of the drum material, soils adjacent to the excavated drum material will be sampled to determine if they are above the PRGs. If the sampling results indicated that the soils are the above PRGs, they will be excavated and disposed and/or treated of off-Site. In addition, any debris that is comingled with contaminated drum material will be removed, disposed and/or treated off-Site.

EPA believes the Preferred Alternative will be protective of human health and the environment, will comply with ARARs, will be cost effective, and will utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

The Preferred Alternative meets the statutory preference for the use of remedies that employ treatment that reduces toxicity, mobility or volume as a principal element to address the principal threats at the Site. The Preferred Alternative can change in response to public comment or new information.

Consistent with EPA Region 2's *Clean and Green* policy, EPA will evaluate the use of sustainable technologies and practices with respect to any remedial alternative selected and implemented for the Site.

#### **COMMUNITY PARTICIPATION**

EPA provides information regarding the cleanup of the RTI Site to the public through public meetings, the Administrative Record file for the site, and announcements published in the Daily Record. EPA and the State encourage the public to gain a more comprehensive understanding of the site and the Superfund activities that have been conducted there. The dates for the public comment period, the date, location and time of the public meeting, and the locations of the Administrative Record files, are provided on the front page of this Proposed Plan.

EPA Region 2 has designated a Regional Public Liaison Manager as a point-of-contact for community concerns and questions about the federal Superfund program in New York, New Jersey, Puerto Rico and the U.S. Virgin Islands. To support this effort, the Agency has established a 24-hour, toll-free number that the public can call to request information, express their concerns or register complaints about Superfund.

For Further	Information	on the	e RTI Site.	nleas	e contact:

Brian Quinn Remedial Project Manager 212-637-4381 quinn brian@epa.gov Patricia Seppi Community Involvement Coordinator 212-637-3679 seppi.patrica@epa.gov

#### U.S. EPA

290 Broadway, 19th Floor. New York, New York 10007-1866

The Regional Public Liaison Manager for EPA's Region 2 office is:

George H. Zachos Toll-free (888) 283-7626 (732) 321-6621

U.S. EPA Region 2 2890 Woodbridge Avenue, MS-211 Edison, New Jersey 08837 ATTACHMENT B
PUBLIC NOTICE ANNOUNCING PROPOSED PLAN
AND COMMUNITY MEETING



#### U. S. ENVIRONMENTAL PROTECTION AGENCY TO HOLD PUBLIC MEETING TO ANNOUNCE THE PROPOSED PLAN AND A PUBLIC COMMENT PERIOD FOR THE RADIATION TECHNOLOGY INC. SUPERFUND SITE IN ROCKAWAY TOWNSHIP

The U.S. Environmental Protection Agency (EPA) will hold a Public Meeting on Thursday, April 21, 2011 at 7:00 p.m. at the Rockaway Township Municipal Building located at 65 Mount Hope Road.

The purpose of the meeting is to announce EPA's Proposed Plan explaining the preferred alternative to address a waste drum disposal area at the Radiation Technology Site (RTI) Superfund Site (site) which is located in Rockaway Township, Morris County, New Jersey and to accept any written or oral comments on the Proposed Plan.

A 30-day public comment period will begin on April 13, 2011 and extend until May 13, 2011. Written comments on the Proposed Plan will be accepted through May 13, 2011 and, if received by that date, will be considered by EPA before it issues the Record of Decision, which will formally document the selected remedy. All written comments should be addressed to:

Mr. Brian Quinn Remedial Project Manager US EPA – Region 2 290 Broadway – 19<sup>th</sup> Floor New York, NY 10007

The entire Proposed Plan is available for review on the following EPA web site: www.epa.gov/region2/superfund/npl/radiationtechnology

If you have any questions or concerns about site related issues, please do not hesitate to contact Pat Seppi, EPA Community Involvement, at 212.637.3679 or by email at <a href="mailto:seppi.pat@epa.gov">seppi.pat@epa.gov</a>

ATTACHMENT C
EPA PRESS RELEASE ANNOUNCING EPA TO REMOVE CONTAMINATED SOIL
FROM THE RADIATION TECHNOLOGY, INC. SUPERFUND SITE.

EPA Releases Plan for Next Phase of Cleanup at Radiation Technology Site in Rockaway, New Jersey

Release date: 04/13/2011

Contact Information: Elias Rodriguez, 212-637-3664, rodriguez.elias@epa.gov

(New York, N.Y.) The U.S. Environmental Protection Agency (EPA) has proposed a plan for the next phase of cleanup work at the Radiation Technology, Inc. Superfund site in Rockaway Township, New Jersey. The 263-acre site was used for testing and developing rocket motors and developing propellants. Ground water at the site is contaminated with volatile organic compounds, a group of chemicals that can have serious health effects. EPA is proposing to dig up and remove pieces of deteriorated drums that are buried in a waste disposal area at the site to prevent them from further contaminating the surrounding soil with heavy metals.

EPA is requesting public comments on the proposed plan and will hold a public meeting to explain the plan and receive comments on April 21, at 7:00 p.m. at the Rockaway Township Municipal Building at 65 Mount Hope Road, Rockaway, New Jersey. Comments will be accepted from April 13 to May 13.

"The improper storage and disposal of drums at this industrial facility has resulted in contamination that has damaged the environment and poses a potential threat to drinking water quality," said EPA Regional Administrator Judith A. Enck. "The cleanup plan proposed today advances EPA's work at the site and we welcome public input on the contamination problem in Rockaway."

EPA's cleanup of the Radiation Technology site is being conducted in phases to facilitate the long-term restoration of the area. The work is being done by the responsible party, Alliant Techsystems (the successor to Thiokol, the former owner and operator of the site), with EPA oversight. During the first phase of the cleanup, the company installed wells to measure and monitor ground water contamination. Nearby residential drinking water wells were also sampled to ensure that drinking water was not affected. To date, the sampling has shown that the drinking water is not contaminated and monitoring of the residential wells continues.

The second phase of the cleanup, announced today, recommends the removal of the deteriorated drum material, followed by off-site disposal or treatment. Alliant Techsystems investigated areas of the site that could be a source of the ground water contamination and found that the drum material in a portion of the site was contaminating the soil and the underlying ground water, and needed to be removed.

Once the deteriorated drums are removed, soil in the immediate area will be sampled to determine if the soil is contaminated and needs to be excavated and disposed of or treated off-site. In addition, any debris that is mixed in with the contaminated drum material will be removed, disposed of or treated off-site. Areas disturbed by excavation activities will be restored. This work will take about one month to complete.

The third and final phase of the cleanup will address buildings and other structures on the property. Initial investigation work to determine what cleanup work will be needed has begun.

EPA will address public comments on the second phase of the work and expects to select and finalize a cleanup plan this summer.

Written comments may be mailed to:

Mr. Brian Quinn
Remedial Project Manager
U.S. Environmental Protection Agency – Region 2
290 Broadway – 19th Floor
New York, N.Y. 10007-1866
212-637-4381
guinn.brian@epa.gov

The EPA has a web page on the Radiation Technology, Inc. Superfund at: <a href="http://www.epa.gov/region2/superfund/npl/radiationtech/index.html">http://www.epa.gov/region2/superfund/npl/radiationtech/index.html</a>

Follow EPA Region 2 on Twitter at <a href="http://twitter.com/eparegion2">http://twitter.com/eparegion2</a> and visit our Facebook page, <a href="http://www.facebook.com/eparegion2">http://www.facebook.com/eparegion2</a>

ATTACHMENT D MEETING AGENDA AND TRANSCRIPT OF 21 APRIL 2011 PUBLIC MEETING



## U.S. Environmental Protection Agency, Region 2



# Agenda

•	Introduction	 Pat Seppi, CIC
•	Site History and Overview	 Diego Garcia, RPM
•	Site Investigations	 Diego Garcia, RPM
•	<b>Proposed Alternatives</b>	 Brian Quinn, RPM

Questions

Preferred Alternative

Brian Quinn, RPM

#### In The Matter Of:

#### RADIATION TECHNOLOGY

Hearing April 21, 2011

FINK & CARNEY REPORTING AND VIDEO SERVICES
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(212) 869-1500 or (800) 692-3465

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	LINITED STATES CAN INCOMISE STATES CONTESTION AS	Page 1				F	Page 3
ניו	UNITED STATES ENVIRONMENTAL PROTECTION AT REGION II	GENCY	(1)	be the point of contact from this			
. [2]			[2]	point forward. And Diego will			2
[3]			[3]	still be around, so I'll still be		٠.	* .
[4]	·		[4]	able to get the historical stuff			
[5]			- 1	from him.			•
[6]			[6]	<b>*</b>			
[7]	· · · · · · · · · · · · · · · · · · ·		- 1	contact him, we'll get back to			
	65 Mount Hope Road			· · · · · · · · · · · · · · · · · · ·			
[8]	Rockaway, New Jersey		Î	you.			
[8]			[9]	• •			
	April 21, 2011		- I' '	Carrie?		•	
[10]	7:00 p.m.		[11]				
[11]			- 1	Blomquist. I'm a project manager			
[12]	•		[13]	with Alliant Techsystems, also			
	APPEARANCES:	•	[14]	known as ATK.			
[14]	PATRICIA SEPPI,  Community Involvement Coordinator		[15	And we got involved in the			
[15]	· ·		[16]	project when we purchased Thiokol,			
	BRIAN QUINN,		[17	a company who had historically			
[16]		* •	[18]	operated out at the site.			
[17			[19	MS. SEPPI: Thank you,	•		
	Remedial Project Manager		[50	Carrie.			
[18	1		[21]	Bob?	,		
[19			[22	MR. MARTIN: I'm Bob Martin,			
[20]	ALSO PRESENT:	*?*	1.	I'm with Conestoga-Rovers &			
[21]			1	Associates, and we're the company	-		
[22			1	that assisted ATK in investigation	•		
[23			1		- <del></del>		
[24 [25						1	Page 4
				at the project.			
	NO CERRI OF	Page :	•				
[1	· · · · · · · · · · · · · · · · · · ·		- 1	Marino. She's our stenographer			
	much for coming out this evening.		[4	this evening. This is a public			
	Not much of a crowd, so we		[5	meeting, so we'll have a			
	appreciate the fact that you're	•	.   [6	transcript from it.Any comments			
	here.	•	17	that you make tonight regarding			
[6		•	[8]	the site and the alternatives will			
	have everybody that's with us		[9	be part of the record, and that			
	introduce themselves and tell you		[10	will be addressed in our final			
	how they're related to the site.	•	. [[11	document.		•	
[10	• • •	•	(12				
	with EPA in Region II, and I'm the		- 1	you, if you don't mind, why don't			
	Community Involvement Coordinator	* •	- 1	you tell us who you are?			
[13	for the site.		[15				
[14			1-	Grazioli. I live on Lake Denmark	•		
	David Garcia, I'm the remedial	•	1.				
	project manager. I've had this	• • •	1	Road.			
	site for many years, and I will be		[18	· · · · · · · · · · · · · · · · · · ·			
	giving a historical perspective of			Giarratano, Lake Denmark Road	•		•
	the site and also be discussing		[20	resident.			
	other aspects of what's been going	• • •	[21	MR. GABLE: I'm Ted Gable.			
[21	on in here for a long time.		[22	I work at Picatinny as project			
	<del>,</del>	· ·	[23	manager for the cleanup.			
(22	APP ALVERS NO.		- 1				
[23			[24	MS. SEPPI: One thing that			
[23 [24	I MH. QUINN: Brian Quinn. I'm taking over the site from I Diego. We work together, and I'll		[24	MS. SEPPI: One thing that gets a little bit different when			

·	Page 5		
[1] we have a meeting that's being	, age 3	[1] Environmental Protection, which is	Page 7
[2] transcribed, at the end, if you			
n have questions or during the	•	[2] the State. They turned it over to	,
(4) presentation, if you —		(a) the Federal EPA in about 2000.	
[5] I don't know if you need		And since then, a few years	
61 them to say their name again,	!	[5] after that, we negotiated with ATK	
m Linda.		[6] on what's called a Consent Decree.	
(8) COURT REPORTER: If you just		[7] And they've gone ahead and done	,
g give me a minute, I'll note the		[8] some sampling and investigations	
[10] names now, and they won't have to.		[9] and gotten us to this point where	
(11) (Pause in proceedings)		(10) we have a proposed plan to clean	
MO OCODI	S	[11] up this drug disposal area that we	
[12] MS. SEPPI: Actually,		[12] found.	
[14] meeting tonight.	·	[13] We'll be taking public	•
		[14] comments, and then after that we	•
(15) The first one is we want to	1	[15] issue what's a legally-binding	•
[16] explain to you about how we want	•	[16] document that's called a Record of	•
[17] to address a drug disposal area		[17] Decision. And that kind of lays	•
that we found at the Radiation		(18) Out exactly our plan to clean up	
[19] Technology site.	ļ	[19] the site, and your comments will	
[20] And most important is we		po be an addendum to that document.	•
[21] want to solicit your comments on	•	[21] After that Record of	•,
[22] our preferred remedy, EPA's		[22] Decision, which we hope to have	
[23] remedy. And we're very interested		(23) this summer, we actually go out	
[24] in public input and what you	,	24) and design the cleanup and then we	
[25] think.		[25] put it into action. And then	
	Page 6		Page 8
[1] And if you have any	'	[1] after that, we have maintenance	•
[2] questions about it, again, as I	•	[2] that goes on for years, O&M. In a	
[3] said, your questions will become		[3] nutshell, that's pretty much what	
[4] part of our final decision on this		[4] we're doing.	
[5] site.		So, the part we're here for	
The public comment period usually lasts about thirty days.		(6) tonight is the public part, where,	,
· · · · · · · · · · · · · · · · · · ·	ļ	[7] again, we'll set out to you what	
[8] It opened on April 13 and it		(a) it is we'd like to do and accept	,
[9] closes on May 13. So, if after [10] this meeting you have any		(9) your comments.	
(11) additional comments, you're		[10] Linda, I've asked her if she	
	·	[11] has any problems or doesn't	·
(12) certainly welcome to send them to	'	[12] understand something or wants you	
Hat Krian until Clase at business an	j	· -	
		[13] to speak a little slowly, she'll	
May 13. Sometimes when you go	·	[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a	
May 13. Sometimes when you go home, you think about other		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility But I've worked with	,
May 13. Sometimes when you go home, you think about other find things.	· ·	[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility But I've worked with [16] her many times, and she's very	· · · · · · · · · · · · · · · · · · ·
[14] May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility But I've worked with [16] her many times, and she's very [17] good.	
May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't [18] want to bore you with the		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you.	
May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't [18] want to bore you with the [19] Superfund remedial process because		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility. But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you. [19] MS. SEPPI: Diego, do you	
[14] May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't [18] want to bore you with the [19] Superfund remedial process because [20] we're a bureaucracy, and, believe		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility. But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you. [19] MS. SEPPI: Diego, do you [20] want to talk a little about the	
[14] May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't [18] want to bore you with the [19] Superfund remedial process because [20] we're a bureaucracy, and, believe [21] me, there is a process involved in		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility. But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you. [19] MS. SEPPI: Diego, do you [20] want to talk a little about the [21] site history?	
[14] May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't [18] want to bore you with the [19] Superfund remedial process because [20] we're a bureaucracy, and, believe [21] me, there is a process involved in [22] Superfund. But I just wanted you		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility. But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you. [19] MS. SEPPI: Diego, do you [20] want to talk a little about the [21] site history? [22] MR. GARCIA: Sure, we can	
[14] May 13. Sometimes when you go [15] home, you think about other [16] things. [17] Just a little bit — I don't [18] want to bore you with the [19] Superfund remedial process because [20] we're a bureaucracy, and, believe [21] me, there is a process involved in [22] Superfund. But I just wanted you [23] to know a couple of things.		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility. But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you. [19] MS. SEPPI: Diego, do you [20] want to talk a little about the [21] site history? [22] MR. GARCIA: Sure, we can [23] talk a little bit about the site	
[16] things. [17] Just a little bit — I don't [18] want to bore you with the [19] Superfund remedial process because		[13] to speak a little slowly, she'll [14] stop and ask you. So, that's a [15] possibility. But I've worked with [16] her many times, and she's very [17] good. [18] COURT REPORTER: Thank you. [19] MS. SEPPI: Diego, do you [20] want to talk a little about the [21] site history? [22] MR. GARCIA: Sure, we can	

Page 9	Page 11
	[1] there is a part of that property
	(2) that bounds it. It also bounds
[3] Rockaway Township. Apparently,	[3] Lake Denmark, which I know many of
some of you in the area know the	[4] you know is a rather large lake in
[5] location of this site.	[5] the area.
[6] It consists primarily of	Past activities at the site
n about 263 acres which is comprised	[7] include the testing and
[8] of three distinct areas. And I	8 development of rocket motors and
[9] will show you — I believe after	propellants, and I'll get into a
on this slide, there's another slide	[10] little about what transpired over
	[11] the years at that site.
m and it becale out the three	[12] And as I said, there's a
	[13] company called Sterigenics that
· _	[14] operates on a portion of the site,
ent 1	[15] which is the active RTI complex
the programme and the second second second	[16] portion. The remainder of the
	177 site has been vacant since 2006
	(10) with restricted access. Many of
	19 you know, you can't get on the
and the second s	[20] property.
share of an esha language and	21) Brian, can I have the next
	[22] slide, please?
De al-serve Industrial Dark area	[23] Actually, we're going to
	[24] skip this slide.
25] area surrounded by fence, and	[25] The site is located, as you
Page 10	<del></del>
there are some signs outside that	Page 12
2] says "Do not enter." The reason	· · · · · · · · · · · · · · · · · · ·
[3] for that is that area, there's a	[2] Arsenal property, this is Lake [3] Denmark. The 65-acre parcel is
[4] lot of old buildings and	4) here.
[5] structures, and, certainly, we are	1 T T
[6] very cautious and careful that	5  Actually, if we go to the
7) people don't injure themselves on	<ul><li>m next slide, it's probably better.</li><li>This is Lake Denmark. This</li></ul>
(8) that property. We don't want them	
p) on there. So, that's why it's	[8] is the 183 acres of undeveloped
an alogad up. It is primes	19) property, in this area.
	10) This area right here, which
	[11] is the active complex area, is
	12) where the Sterigenics facility is.
	[13] And, also, behind there is where
	[14] we're going to be discussing a bit
an anathran nortion of it is subgra it	[15] about the drum disposal area.
	Then that's the 63-acre
	[17] parcel, which is the fenced-in
100 DO COTAL DA	[18] area where a lot of the historical
MD CARCIA, Managerer Pro	[19] rocket motor testing was done.
<b>1</b>	[20] Did we skip one, Brian?
	21) We're missing a slide, I
	believe. Something happened to
	231 one of the slides.
the state of the s	Okay. We're on here, 1981.
	[25] I'm going to go back a little bit

		Page 13		Page 15
[1]	before the — what had transpired	ŭ	[1] of work.	, age 15
[2]	and got this site listed on the	:	In 1981, there was — some	
[3]	National Priorities List.		[9] of the employees in the facility	
[4]	The site prior to 1941 was		[4] noticed that the water had a bad	
[5]	owned by a company called Singer		[5] odor and tasted strangely. So,	
	Manufacturing. The site was not			•
	developed. It was not used for	!	is the Rockaway Township Department	•
	anything, I believe, at that		n of Health was called in, along	
	point.		[8] with NJDEP, and they identified in	
[10]	After the early 1940s, it		(e) two on-site drinking water wells	
		!	volatile organic compounds.	
	- · · · · · · · · · · · · · · · · · · ·	1	Once that was determined,	
	Reaction Motors. And not until		[12] Rockaway Township asked Radiation	
	•		[13] Technologies to close those wells.	
	believe, it was purchased by — it		[14] They also — the Rockaway Township	
	was purchased by a company called		[15] Health Department sampled the	
[16]	Thiokol.		residential wells on the	٠
[17]	MS. BLOMQUIST: Reaction		not on the property,	
	Motors still had it, they just		[18] the residential wells in the area,	
	started developing it in the	'	but they found none of the wells	
[20]	fifties.		[20] to be effected.	
[21]	MR. GARCIA: They started		So, they began sampling the	
[22]	developing the property in the	•	wells back in the early eighties,	•
[23]	early fifties with this company		123] so it's been some time since they	
[24]	called Thiokol Corporation.		[24] began sampling those wells.	
[25]	For about fifteen years or		251 In addition, NJDEP required	
		Page 14		Page 16
[1]	so, they operated on the property	* 1	(1) Radiation Technologies to conduct	
[2]	in — why am I getting a blank		[2] an investigation of the	
[3]	here — they did rocket motor		[3] groundwater there because they	
[4]	testing and the development of		[4] found it was contaminated with	•
[5]	rocket propellants and different			
[6]			[5] volatile organic compounds.	
	aspects of that type of work.		[5] volatile organic compounds. [6] MR. GIARRATANO: What is	
[7]	aspects of that type of work.  A company named Reaction		[6] MR. GIARRATANO: What is	
	7.5		(6) MR. GIARRATANO: What is	
[8]	A company named Reaction		<ul> <li>MR. GIARRATANO: What is</li> <li>that?</li> <li>MR. GARCIA: Volatile</li> </ul>	
(8) (8)	A company named Reaction  Motors, as many of you know —		<ul> <li>MR. GIARRATANO: What is</li> <li>that?</li> <li>MR. GARCIA: Volatile</li> <li>organic compounds are typically</li> </ul>	
(8) (8)	A company named Reaction  Motors, as many of you know —  excuse me, Radiation Technologies.		[6] MR. GIARRATANO: What is [7] that? [8] MR. GARCIA: Volatile [9] organic compounds are typically [10] degreasers or they're used in	
[8] [9] [10]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right.		(6) MR. GIARRATANO: What is (7) that? (8) MR. GARCIA: Volatile (9) organic compounds are typically (10) degreasers or they're used in (11) cleaning components. On this	
[8] (9] (10] (11) [11]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies		[6] MR. GIARRATANO: What is [7] that? [8] MR. GARCIA: Volatile [9] organic compounds are typically [10] degreasers or they're used in	
[8] (9] (10] (11) [11]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe		[6] MR. GIARRATANO: What is [7] that? [8] MR. GARCIA: Volatile [9] organic compounds are typically [10] degreasers or they're used in [11] cleaning components. On this [12] site, I believe that's what they [13] used it mostly for.	
[8] (9] (10] (11) [12]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in		[6] MR. GIARRATANO: What is [7] that? [8] MR. GARCIA: Volatile [9] organic compounds are typically [10] degreasers or they're used in [11] cleaning components. On this [12] site, I believe that's what they [13] used it mostly for.	
[8] (9] (10] (11) (12) (13) (14) (15)	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72.		169 MR. GIARRATANO: What is 171 that? 189 MR. GARCIA: Volatile 189 organic compounds are typically 190 degreasers or they're used in 191 cleaning components. On this 192 site, I believe that's what they 193 used it mostly for. 194 So, in 1984, the site was 195 listed on what we call the	
[8] (9] (10] [11] [12] [13] [14] [15] [16]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always		165 MR. GIARRATANO: What is 177 that? 188 MR. GARCIA: Volatile 189 organic compounds are typically 1101 degreasers or they're used in 1111 cleaning components. On this 1122 site, I believe that's what they 1131 used it mostly for. 1141 So, in 1984, the site was 1151 listed on what we call the 1161 National Priorities List, the	
[8] (9] (10] [11] [12] [13] [14] [15] [16]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old		161 MR. GIARRATANO: What is 171 that? 181 MR. GARCIA: Volatile 181 organic compounds are typically 182 organic compounds. On this 183 site, I believe that's what they 183 used it mostly for. 184 So, in 1984, the site was 185 listed on what we call the 186 National Priorities List, the 187 Superfund sites, because of	
[8] (9] (10] [11] [12] [13] [14] [15] [16] [17] [18]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old stuff.		161 MR. GIARRATANO: What is 171 that? 181 MR. GARCIA: Volatile 181 organic compounds are typically 182 degreasers or they're used in 183 cleaning components. On this 184 site, I believe that's what they 185 used it mostly for. 184 So, in 1984, the site was 185 listed on what we call the 186 National Priorities List, the 187 Superfund sites, because of 188 elevated levels of organic	
[8] (9] (10] [11] [12] [13] [14] (15] (16) (17] (18]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old  stuff. In '72, they operated on		161 MR. GIARRATANO: What is 171 that? 181 MR. GARCIA: Volatile 181 organic compounds are typically 182 degreasers or they're used in 183 ite, I believe that's what they 183 used it mostly for. 184 So, in 1984, the site was 185 listed on what we call the 186 National Priorities List, the 187 Superfund sites, because of 188 elevated levels of organic 189 compounds in the groundwater. And	
[8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old stuff. In '72, they operated on this fifteen-acre parcel mostly but they did own the entire site.		161 MR. GIARRATANO: What is 171 that? 183 MR. GARCIA: Volatile 189 organic compounds are typically 180 degreasers or they're used in 1811 cleaning components. On this 1812 site, I believe that's what they 1813 used it mostly for. 1814 So, in 1984, the site was 1815 listed on what we call the 1816 National Priorities List, the 1817 Superfund sites, because of 1818 elevated levels of organic 1819 compounds in the groundwater. And 1820 that's when DEP started to do a	
[8] [9] [10] [12] [13] [14] [15] [16] [17] [18] [20] [21]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old stuff. In '72, they operated on this fifteen-acre parcel mostly but they did own the entire site. And they were doing different		[6] MR. GIARRATANO: What is [7] that? [8] MR. GARCIA: Volatile [9] organic compounds are typically [10] degreasers or they're used in [11] cleaning components. On this [12] site, I believe that's what they [13] used it mostly for. [14] So, in 1984, the site was [15] listed on what we call the [16] National Priorities List, the [17] Superfund sites, because of [18] elevated levels of organic [19] compounds in the groundwater. And [20] that's when DEP started to do a [21] remedial investigation to try to	
[8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old stuff. In '72, they operated on this fifteen-acre parcel mostly but they did own the entire site.  And they were doing different types of work there; radiating		165 MR. GIARRATANO: What is 177 that? 188 MR. GARCIA: Volatile 189 organic compounds are typically 1101 degreasers or they're used in 1111 cleaning components. On this 1122 site, I believe that's what they 1131 used it mostly for. 1141 So, in 1984, the site was 1151 listed on what we call the 1161 National Priorities List, the 1171 Superfund sites, because of 1181 elevated levels of organic 1191 compounds in the groundwater. And 1201 that's when DEP started to do a 1211 remedial investigation to try to 1221 identify what the sources of the	
[8] (9] (10] (11] (12] (13] (14] (15] (16) (17] (18] (19] (20] (21] (22] (23]	A company named Reaction  Motors, as many of you know — excuse me, Radiation Technologies.  Now I'm getting it right. Radiation Technologies purchased the property I believe in  MS. BLOMQUIST: '72. MR. GARCIA: '72. I always had a hard time with the old stuff. In '72, they operated on this fifteen-acre parcel mostly but they did own the entire site.  And they were doing different types of work there; radiating		[6] MR. GIARRATANO: What is [7] that? [8] MR. GARCIA: Volatile [9] organic compounds are typically [10] degreasers or they're used in [11] cleaning components. On this [12] site, I believe that's what they [13] used it mostly for. [14] So, in 1984, the site was [15] listed on what we call the [16] National Priorities List, the [17] Superfund sites, because of [18] elevated levels of organic [19] compounds in the groundwater. And [20] that's when DEP started to do a [21] remedial investigation to try to	

Page 17		Page 19
[1] From '90 to '93, different	[1] MR. GIARRATANO: I'm just	
[2] measures were taken on the site	[2] wondering why the next to last	
[3] that include removal of	[3] step, why is that a five-year	
41 underground storage tanks, removal	[4] process?	
s of some soils, debris, cleaning of	[5] MR. GARCIA: From '04 to	
[6] sumps. There were all different	[6] '09?	
(7) things that they tried to address.	[7] MR. GIARRATANO: Yes.	
[8] In 1994, EPA issues a Record	MR. GARCIA: Well, one of	
9 of Decision for the groundwater	191 the reasons, as you know, it's a	
10] based on the work DEP did. And	[10] very large site.	5
what was chosen was a remedy to	And you'll see in the	
extract and treat the contaminated	[12] subsequent slides that we looked	
13] groundwater on a portion of the	[13] at about — I believe we took	
14) site, mostly.	[14] about 130 locations or samples	
Give me another slide,	is throughout the site. So, one of	
iej please.	[16] the things we did is we tried to	
Okay. DEP was working with	[17] focus on areas that historically	
the owner of the company called	[18] may have had operations that could	
Radiation Technologies. And what	[19] have contributed to contaminating	,
happened in 1989, the company went	[20] the groundwater And a lot of	/
21] bankrupt. So, at that point, DEP	[21] that information was very old	
requested EPA's assistance working	[22] information, so we had to go back	
23] on the site and transferred that	in time and look at a lot of the	
24) site over to EPA to become a	24  old records and try to identify	
ges) federal lead site.	[25] those areas. So, it took some	
Page 18		Page 20
Once EPA got the site, we	[i] time.	
[2] began an investigation to identify	[2] MS. BLOMQUIST: And there's	
3 a responsible party on the site.	[3] a process.	
[4] And, so, in 2004, we identified a	[4] MR. GARCIA: There's a	
[5] company called Alliant	[5] review process.	
[6] Techsystems —	[6] MS. BLOMQUIST: We have to	
[7] MS. BLOMQUIST: It was	77 prepare a work plan, it needs to	
[8] Thiokol first.	[8] be approved by EPA, we incorporate	
p MR. GARCIA: It was first	[9] comments, and it's just that —	
10] called Thiokol, and then ATK is	developing before you go out and	
11] successor to Thiokol.	(11) do the investigation just takes	
And EPA and ATK negotiated	[12] some time.	
an agreement to further	[13] MR. GABLE: Was that	
investigate potential sources of	[14] investigation only to find sources	
15) groundwater. And that's what we	[15] or was it to look for more	
call the Operative Unit 2 work.	[16] groundwater?	
From that time, from 2004 to	[17] MR. GARCIA: Yes, it's to	
18] 2009, Alliant Techsystems and EPA	[18] identify sources that contributed	
19] did an investigation on the site	19 to the contaminated groundwater.	
to try to identify sources of	[20] Any other questions?	
21] groundwater contamination.	[21] So, in 2004 — and I want to	
22) In 2010 and 2011, EPA	22  step back a bit because I believe	,
23) prepared what we call a focussed	23  it was about late 2003, early	
24) feasibility study, which is where	[24] 2004, EPA and Alliant Techsystems	
	IN TOOL TELL SHIP WHISH I COURS AS ICHIS	*

[25] we're at now.

251 did a reconnaissance of the site.

		Page 21		Page 23
[1]	We walked around the site,		[1] targeted those areas for sampling.	
[2]	basically, and we identified some		[2] MR. GIARRATANO: Were the	•
[3]	debris and some drums behind the		3 drums in the ground still	
(4)	storage facility, which is that		[4] polluting the site?	
[5]	fifteen-acre parcel.		[5] MR. GARCIA: Well, no, at	
[6]	In 2004, Alliant Techsystems		61 that point right now, we just knew	
[7]	did a preliminary assessment of	•	(7) there were contaminated drums in	
[8]	that area with EPA oversight, and		[8] the area and that's what we saw.	
[9]	we chose twelve sampling locations		[9] And we sampled those drums.	•
10]	to take samples. And we analyzed	·	[10] We were curious to see what the	
	them for different compounds that		[11] contents of those drums were to	•
	we believed could be contributing		[12] see if they were the same	
	to contaminated groundwater.	•	[13] contaminants that were in the	
	There were volatile organic		[14] groundwater.	4
	compounds.		[15] Later on you'll see in the	•
6)	We also chose something		slides what we found is there are	
	called perchlorate. It's		metals in the drums. And we have	
	typically used in rocket — you		not seen what we call metals in	
	see a lot of rocket motor sites or		the groundwater. So, as far as we	
•	other sites where they use		20  see, they're not contributing to	
	propellants mostly.		21] the contaminated groundwater.	
21	MS. BLOMQUIST: Solid rocket		22  It's just material that is	
•	fuels.		[23] certainly above our cleanup	
41	MR. GARCIA: Solid rocket		124) numbers and has to be addressed,	
•	fuels.		25  but it's not contributing to the	
		Page 22	pay but it's not contributing to the	Page 2
[1]	And we also did a scan for	1 age 22	[1] groundwater. So, we will address	Page 2
	radiological parameters because we		[2] those drums and get them out of	
	weren't really sure what we may		[3] there.	
4)	encounter and wanted to rule that		Next slide.	
[5]	out because there was — Radiation		[5] In 2008, after preparing	
6]	Technologies did irradiate		6 work plans and going through the	
7]	foods — not foods, medical	•	77 process of getting approvals on	*
	devices and some other things.		[8] doing a remedial investigation,	
9]	The results indicated only		[9] Alliant Techsystems went out and	
	low levels of volatile organic	•	[10] collected about 130 samples from	
	compounds and elevated levels of		[11] the soil, the surface water,	
11	_		Illi the son, the surface water.	
	metals. And we didn't find any		1	
2]	metals. And we didn't find any radiological contamination either,		12 sediments, and waste material from	
2] 3)	-		1	
2] 3) 4)	radiological contamination either,		1121 sediments, and waste material from 1131 those drums, certainly Again, we	4.
2] 3) 4) 5]	radiological contamination either, so that was a good thing.		[12] sediments, and waste material from [13] those drums, certainly Again, we [14] analyzed for the same contaminants	4.
2] 3) 4) 5]	radiological contamination either, so that was a good thing. Just to give you a sense of		[12] sediments, and waste material from [13] those drums, certainly Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the	4.
2] 3] 4] 5] 6]	radiological contamination either, so that was a good thing. Just to give you a sense of what we looked at, Lake Denmark		[12] sediments, and waste material from [13] those drums, certainly Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the [16] volatile organic compounds,	٠.
2] 3) 4) 5] 6] 7]	radiological contamination either, so that was a good thing.  Just to give you a sense of what we looked at, Lake Denmark Road is right here. You can see		[12] sediments, and waste material from [13] those drums, certainly. Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the [16] volatile organic compounds, [17] metals, and perchlorate. [18] We also installed 32 test	÷.
2] 3) 4) 5] 6] 7] 8]	radiological contamination either, so that was a good thing.  Just to give you a sense of what we looked at, Lake Denmark Road is right here. You can see it here. The Sterigenics facility		122 sediments, and waste material from 133 those drums, certainly Again, we 144 analyzed for the same contaminants 145 we just mentioned, which is the 146 volatile organic compounds, 147 metals, and perchlorate.	
2] 3] 4] 5] 6] 7] 8] 9]	radiological contamination either, so that was a good thing.  Just to give you a sense of what we looked at, Lake Denmark Road is right here. You can see it here. The Sterigenics facility is I believe around this area.		[12] sediments, and waste material from [13] those drums, certainly Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the [16] volatile organic compounds, [17] metals, and perchlorate. [18] We also installed 32 test [19] pits in the drum disposal area and [20] took about 16 soil and waste	
2] 3) 4) 5] 6] 7] 8] 9]	radiological contamination either, so that was a good thing.  Just to give you a sense of what we looked at, Lake Denmark Road is right here. You can see it here. The Sterigenics facility is I believe around this area.  What we targeted was and		[12] sediments, and waste material from [13] those drums, certainly Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the [16] volatile organic compounds, [17] metals, and perchlorate. [18] We also installed 32 test [19] pits in the drum disposal area and [20] took about 16 soil and waste [21] samples from 11 of those test	
2] 3] 4] 5] 6] 7] 8] 9]	radiological contamination either, so that was a good thing.  Just to give you a sense of what we looked at, Lake Denmark Road is right here. You can see it here. The Sterigenics facility is I believe around this area.  What we targeted was and what we saw was these different		[12] sediments, and waste material from [13] those drums, certainly. Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the [16] volatile organic compounds, [17] metals, and perchlorate. [18] We also installed 32 test [19] pits in the drum disposal area and [20] took about 16 soil and waste [21] samples from 11 of those test [22] pits.	
2] 3] 4] 5] 6] 7] 8] 9] 1] 2]	radiological contamination either, so that was a good thing.  Just to give you a sense of what we looked at, Lake Denmark Road is right here. You can see it here. The Sterigenics facility is I believe around this area.  What we targeted was and what we saw was these different areas where we saw debris and		[12] sediments, and waste material from [13] those drums, certainly Again, we [14] analyzed for the same contaminants [15] we just mentioned, which is the [16] volatile organic compounds, [17] metals, and perchlorate. [18] We also installed 32 test [19] pits in the drum disposal area and [20] took about 16 soil and waste [21] samples from 11 of those test	

		Page 25		Page 27
[1]	themselves, there really is no		[1] MS. BLOMQUIST: And they're	
[2]	drum. A lot of the drums are in		[2] just rusted out.	
(3)	disrepair, so it's just material	,	[3] MR. MARTIN: You can click	•
[4]	that's outside of the drums or on		[4] ahead and show them.	
[5]	top of the drums or just empty.	The contract of the contract o	[5] MS. BLOMQUIST: There is a	
	We tried to target the areas where		6 picture.	
	we saw remnants of drums.	÷	[7] MR. GARCIA: Actually,	
[8]	MS. BLOMQUIST: A lot is at		Brian, why don't you go ahead and	
	the surface.		p we'll come back and show you what	
10]	MR. GABLE: There were some		it looks like.	
	drums there I noticed —			
12]				
	question?		(12) MR. GABLE: There's a well	
14]			right near here.	
15]			[14] MR. GARCIA: Yes, there's a	
	in wells, there were drums from	•	[15] well I believe right over here.	
	their IDW, Identified Waste.		[16] MR. GABLE: That was put in	
18]			na MR. GARCIA: Yes.	
	that you looked at?		[18] MR. GAHCIA: Yes.	
20		•	[20] we use in sampling for our	
21]	ALC DI CHOUST NO. 1	. ,	[21] groundwater work.	
	not in that area. At least	`	[22] The Sterigenics facility is	
23]	they're not there now.		pay up here. So, this — for those of	
24			[24] you who know this area, there's a	
[25]	MR. GARCIA: We believe		25  railroad spur that kind of goes	
-		Page 26		Page 28
[1]	these drums have been there for a		[1] along Lake Denmark And, so, this	1 498 20
[2]	long time.		z is south of that railroad spur.	
(3)	MS. BLOMQUIST: These were		3 And if you walk along it, you'll	
[4]	all corroded.		141 see it.	
[5]	MR. GABLE: Are these drums		MR. GRAZIOLI: I know where	
[6]	from the Thiokol operations?		[6] it is.	
[7]	MS. BLOMQUIST: We don't		[7] MR. GABLE: The trenching	
,,,,	really know. They're just		occurred — you did some of the	
[o]	rusted —	•	[9] trenching right there?	
[9]	MR. GABLE: Can't tell if		[10] MR. GARCIA: We did	
(9) 10)			[10] MR. GARCIA: We did [11] trenching in these areas, yes.	
[9] 10] 11]	they're from the sixties,		[11] trenching in these areas, yes.	
(9) 10) 11) 12)	they're from the sixties,		[11] trenching in these areas, yes.	
(9) 10) 11) 12) 13)	they're from the sixties, seventies, eighties, nineties?		(11) trenching in these areas, yes. (12) MR. GABLE: Okay.	
(9) 10) 11) 12) 13) 14)	they're from the sixties, seventies, eighties, nineties? MR. GARCIA: At this point, no, we really couldn't. A lot of it is mostly		(12) MR. GABLE: Okay. (13) MR. GARCIA: A series of	
(9) 10) 11) 12) 13) 14)	they're from the sixties, seventies, eighties, nineties?  MR. GARCIA: At this point, no, we really couldn't.  A lot of it is mostly debris.		[11] trenching in these areas, yes. [12] MR. GABLE: Okay. [13] MR. GARCIA: A series of [14] trenches.	
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in empty — they just tossed in	
(2) there.	
(3) MS. BLOMQUIST: Yes.	
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77 parcel here, and surrounding the	
[8] property is the undeveloped area,	
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	[1] empty — they just tossed in [2] there. [3] MS. BLOMQUIST: Yes. [4] And I think it was used by [5] everybody who had owned the [6] property. [7] MR. GABLE: Or didn't. [8] MS. BLOMQUIST: Exactly. [9] There's plenty of couches and [10] other things back there too. [11] MR. MARTIN: RTI was a big [12] user of drums in their operation. [13] MS. BLOMQUIST: And they [14] disposed of a lot of drums there. [15] MR. GARCIA: Want to go back [16] two slides? [17] Just to give you a [18] perspective of where we targeted, [19] the hashed areas or areas that we [20] targeted for investigations, this [21] right here is Lake Denmark Road. [22] The residential homes, I believe, [23] are up here in this area. [24] The hashed areas are all [25] areas where there historically has [1] been some sort of operations at. [2] And then I believe this is the [3] drum dump. Yes, that's the drum [4] dump area we've identified. [5] Also, this is the 65-acre [6] parcel here, this is the 15-acre

Page 33		Page 3
[1] arsenic, cobalt, copper, iron,	[1] That's another part of the	
[2] manganese, and thallium.	[2] work that we're dealing with right	
And let's go to the next	13) now, that we've installed	
[4] slide.	[4] additional monitoring wells, we've	
MR. GIARRATANO: I've been	[5] been sampling and expanding our	
6 told I have manganese in my water	[6] investigation of where the	
[7] by my well guy and also when it's	(7) contamination is, and sampling the	
(B) been tested.	[9] residential wells.	
[9] Is that a naturally	9 It's a very large site. We	
o occurring thing?	[10] believe we did a pretty good job	
11 MR. GARCIA: I believe in	[11] trying to identify the sources,	
2) the area it is.	[12] where the potential sources were.	
3] MS. BLOMQUIST: Yes.	[13] But historically, these operations	
4] MR. GARCIA: I think we've	[14] happened a long time ago, so the	
s seen it in elevated levels of	[15] sources may have already migrated	
g groundwater in general throughout	[16] down to the groundwater, so we may	
η the site.	[17] not find those sources, it would	
a Haven't we?	[10] just be in the groundwater and now	
9 MR. MARTIN: Iron and	[10] are embedded in the rock and	
oj manganese.	[20] MR. GIARRATANO: Which means	
ng MR. GARCIA: So, current	[21] you really can't do anything about	
z <sub>1</sub> site investigation. The results	[22] it.	
a) found low concentrations of VOCs	[23] MR. GARCIA: Well, we can	,
and semi-volatiles at various	[24] treat the water. That may be one	
25] locations throughout the site but	[25] of the options that we decide	
Page 34		Page 3
no sources of groundwater	[1] we'll do on the site. Certainly,	
2) contamination were identified.	[2] if nobody is using the water,	
3 So, there were no sources that we	[3] that's something — the EPA has to	
4) could find that are contaminating	[4] make a decision what we would do	
5) the groundwater.	[5] with the groundwater.	
The only area that we found	[6] As I said to you earlier in	
was the drum disposal area that	[7] sidebar, our goal certainly is to	
had elevated metal concentrations	(a) protect the public. So, we will	
9) that are not affecting the	[9] continue to monitor the	
of groundwater but we know needs to	residential homes to make sure	
ha addressed hassauss there do mass	[11] that none of that contaminated	
· · · · · · · · · · · · · · · · · · ·	in that hone of that containmated	•
a potential risk.	[12] groundwater is entering the	
2] a potential risk. 3] MR. GIARRATANO: If you	[12] groundwater is entering the [13] residential wells. But at this	
2) a potential risk. 3) MR. GIARRATANO: If you 4) can't find a source, how can you	[12] groundwater is entering the	
2) a potential risk. 3) MR. GIARRATANO: If you 4) can't find a source, how can you 5) remediate it?	[12] groundwater is entering the [13] residential wells. But at this [14] point right now, we are still [15] evaluating what to do about the	
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	Page 37			Page 39
[1] MR. GARCIA: Into Lake		[1] removed potential sources of		J
2 Denmark and gets —		[2] contamination when they did that		
[3] MR. GABLE: It goes from		(3) work. You know, they may have		
[4] Lake Denmark, goes through		[4] been leaking tanks, which they		
[5] Picatinny into Lake Picatinny, and		[5] pulled out; there was contaminated	*	
then Green Pond Brook into		is soil underneath the leaking tanks;		
77 Rockaway.	į	7 some of the sumps that they found		٠.
MR. GIARRATANO: So.		is with contamination in them, they	•	
9 eventually that contaminated water		g pumped out.	•	
o is traveling into Rockaway River?		•	•	
MD AADIE TE I	ŀ	[10] So, there was work that they		
	1	[11] did to, hopefully, not exacerbate		
Picatinny does sample Green Pond		[12] the problem. It's been done back		
Brook before it leaves Picatinny.	- 1	[13] in the early nineties. So, I	4	
Are we discussing the	,	[14] think a combination between that		
s groundwater now?	J	[15] and what we've done now gives us a		
Because I'd like to know if	I	[16] good overview of trying to		
77 you've sampled Lake Picatinny —	1	identify sources of contamination.	•	
a) Lake Denmark to see if there's any	- 1	[18] Let's go to the next slide,		
9 influence of what we see into that		[19] Brian.	•	
o lake.	i	1 was going to let Brian do		
MR. GARCIA: What we have		[21] this. Certainly, he's more than	,	
one — and I'd like to just		(22) welcome to.		
3) finish this presentation, and,		[23] MR. QUINN: What the heck?		•
4) certainly, we can talk about this		[24] MR. GARCIA: He'll talk		
sj when we're done.		[25] about what the alternatives are	<del></del>	
We have put additional — I	Page 38			Page 40
[1] We have put additional — I [2] can tell you we have put		that we're considering.  [2] MR. QUINN: Basically, when		
additional wells in recently along				
4 Lake Denmark and we have been		(3) we do the focussed feasibility [4] study, we take the RI, Remedial		•
s sampling those wells, and we can				
		m Investigation data and further		
6 discuss that later on in our		[5] Investigation, data and further	٠.	
(a) discuss that later on in our		[6] look at it and look at	• • • • • • • • • • • • • • • • • • • •	
<ul> <li>(6) discuss that later on in our</li> <li>(7) presentation.</li> <li>(8) MR. MARTIN: You said there</li> </ul>		[6] look at it and look at [7] alternatives to get rid of what's	· .	
[7] presentation. [8] MR. MARTIN: You said there		[6] look at it and look at [7] alternatives to get rid of what's [8] there and come up with ideas,		
(7) presentation. [8] MR. MARTIN: You said there [9] were really no sources identified,		[6] look at it and look at [7] alternatives to get rid of what's [8] there and come up with ideas, [9] evaluate the cost, and a few other		
(7) presentation. (8) MR. MARTIN: You said there (9) were really no sources identified, (10) but there was inter-remedial	ŀ	[6] look at it and look at [7] alternatives to get rid of what's [8] there and come up with ideas, [9] evaluate the cost, and a few other [10] parameters.		
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Page 41 Page 43 m it's soil, it's the DEP cleanup [1] going away eventually or do we 121 numbers; if it's the water, it's [2] need to take a further measure; [3] the DEP cleanup groundwater B) have conditions changed, have they 141 numbers. So, obviously we won't [4] changed the regs where things that [5] achieve any of those because it's (5) weren't an impact are now an (6) still sitting there. [6] impact? That may be addressed at The second one, as we've n a later date. [8] been discussing, is the excavation Alternative two, you can see [9] of the treatment and taking it off [9] it's about a hundred cubic yards, [10] site for disposal and, if [10] and they'll be excavated. Again, [11] necessary, a treatment option on (iii it's estimated. That's what we men this. [12] anticipate. When you get out, it The cost of that is roughly [13] could be slightly more or less [14] \$200,000, will take about a month, (i4) when you start doing the sampling [15] and the same time frame to achieve us because you'll be doing other [18] the remedial objectives because [16] soils adjacent to the drum it's just going to dig up the [17] material until we get everything. [18] area, sample, and keep digging And anything else that's in [19] until we've got everything out, [19] the site, any kind of extra drums, [20] and then backfill it and grade it [20] bicycles, anything else, they [21] back to where it was, previous would also be taken off the site. 22 conditions. 221 And as I mentioned before, we MR. GRAZIOLI: Now, this is [23] backfill with clean fill and [24] the site where the drums were [24] revegetate it. So, pre-existing [25] found, the dumping area. [25] conditions to when it wasn't a Page 42 Page 44 MR. QUINN: Correct, behind [1] drum disposal area. [2] Sterigenics. MR. GARCIA: When it wasn't. MR. GRAZIOLI: And you're MR. QUINN: That's what I [4] concentrating and focusing just on μ) said. isi that area? When we take the MR. QUINN: Right. alternatives, we evaluate them [7] If we found other source [7] against nine criteria to come up (a) areas, they would be included. [8] with the best balance of all [9] But since this is the only thing [9] these: EPA's main goal of [10] that was found - not quite a protection of human health and the [11] source area, but still needed to [11] environment; [12] be addressed. [12] Compliance with State and Go to the next one. [13] Federal regs; [14] So, this is kind of a little [14] The long-term effectiveness [15] more than I just said, but [15] of whatever remedy you're [16] alternative one, we take no [16] choosing; [17] action. Since it stays on site, [17] Reduction of the materials [18] we would be required to do a [18] that are there. Sometimes you [19] five-year review because they want [19] just reduce it in the groundwater [20] us to look at sites every five [20] down to the level that's at the [21] years to make sure the remedy is [21] groundwater treatment level. You [22] still working. Because nothing [22] may not take it all the way to [23] would be done, contaminants would [23] zero, but you're reducing the [24] be left on site. We have to keep [24] toxicity of it; [25] looking to make sure that they're [25] The short-term effectiveness

	Page 45	,	Page 47
(i) of it. Sometimes, like this, is		[1] not paying for it.	•
[2] just digging it out, so it's a	1	MR. GABLE: So, the cost to	
3 short-term fix. Other site		(3) the taxpayer is the same for	
[4] remedies are long-term, and		(4) either.	•
[5] sometimes you have to take a		(5) MR. QUINN: Correct. Even	
[6] shorter measure to, like, if		(6) though it's a Federal lead site,	
[7] somebody's immediately going to be		[7] we have a responsible party that's	•
[8] impacted by something, we might		1	•
	•	[8] doing the work. I have another	
p put a cap on it to keep the dust	J	191 site in the area that's a Federal	
of from going offsite;		[10] lead site, and we pay for the	•
1) How easily it is to		[11] cleanup and extra efforts.	
2) implement the remedy;		[12] MR. GIARRATANO: How do you	
a And then, ultimately, the	•	[13] consider alternative one to be	•
4) COSt.		[14] short-term effective?	
The last two is when we deal		[15] MS. BLOMQUIST: Right now,	
of with the State to make sure the	t.	the site is industrial and those	
7 State is onboard with our		[17] metal concentrations don't exceed	
a decision, do they agree or		[18] any industrial risks. So, if the	
9) disagree, and any other agencies	5	(19) site stays as it is, it's actually	
of that would be involved depending	•	[20] okay, you can leave it there.	
on the contamination, and then why		But if the site is ever	
y we're here tonight; to hear if you		[22] rezoned to residential use, then	* 2
n have any valid concerns or		1231 those metal concentrations are not	
4) objections to the remedy or type		[24] acceptable. So, that's why this	•
of remedy we're choosing.	,	provides unrestricted use in the	
	Page 46		Page 48
This time, it's only two.		[1] future for that.	,
2 Sometimes we have five or six		[2] MR. GABLE: Can I follow up	
g remedies that somebody might want		[3] to his question?	
41 to know why you're choosing one	**	[4] I was looking at the risk	
[5] Over the other.		[5] assessment. Only in residential	
True de la companya del companya de la companya del companya de la		[5] assessment. Only in residential [6] is there risk.	•
Flip to the next one. This is kind of a summary.		[6] is there risk. [7] MS. BLOMQUIST: Yes.	
Flip to the next one. This is kind of a summary.		[6] is there risk.	
Flip to the next one. This is kind of a summary. You can see alternative two you accomplishes most of the nine		[6] is there risk. [7] MS. BLOMQUIST: Yes.	
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Page 49 Page 51 (1) State and Federal regulations, This is just to help us to [2] there's a State regulation that [2] see which one is more protective, [3] says you shall not have soil [3] which remedy is protective of [4] contamination above this level in [4] the --[5] an industrial area, So, that's MR. GRAZIOLI: Doing 161 also a driver. [6] something and doing nothing? You don't consider that? [7] MR. QUINN: We always have MR. QUINN: It is, but I [8] to look at this one because we [9] believe it's below. So, if it's 19) need a baseline of zero and then [10] below the standard, it's not 1101 we can evaluate iii considered because it's already in MR. GRAZIOLI: Flipping a compliance. [12] coin is doing more than what MR. GABLE: There were no [13] that's doing. [14] levels of soil above the State MR. QUINN: And the shortcleanup numbers? [15] term effectiveness too, you also MS. BLOMQUIST: For [18] have to realize, the area is boxed 1171 industrial --[17] in. It's gated, most of it. MR. QUINN: We could have Isn't it? [19] checked it to say we did evaluate MS. BLOMQUIST: This area is [19] [20] it, but you're trying to weigh [20] not. 1211 which one is more - this is MR, GABLE: Was that a [21] [22] actually more protective than this [22] consideration looking at that [23] one is because you're not doing [23] alternative, putting a fence [24] anything even though you're [24] around the area? [25] evaluating against it. MR. QUINN: If it were going Page 50 Page 52 So, that's the reason. You [1] to be nothing, it would probably [2] consider it, but that's not one of [2] be an institutional control of (3) the reasons it's not going to be [3] some sort. An institutional [4] protective. (4) control is just a measure we take MR. GABLE: I guess we'll (5) to make sure if you're not going [6] just — on the short-term [6] to do something like - you may m effectiveness question that he [7] say nobody can use this for [8] asked and you answered that it's [8] residential unless this is taken [9] safe, basically, for industrial (9) care of. [10] use. So, we don't have to do But the State may not say [11] anything, but if you want to [12] it's safe because copper is at [12] develop that parcel, you would [13] 33,083, and that's above their [13] have to clean it up, something [14] number for clean industrial sites. [14] like that. Or put a fence to keep So, is that something -[15] kids and — well, not keeping kids [15] MR. QUINN: That would fall [16] out, but still you're taking under the two that aren't on here [17] measures to prevent easy access to [18] which we said, the State and the [18] it. [19] agency considerations. MS. BLOMQUIST: But this is MR. GABLE: Okay. [20] such a small area, we just didn't [20] MR. QUINN: And also input [21] really consider it. [22] from the community, where we would MR. QUINN: Flip the next [22] [23] say we want to do number one and [23] one. [24] the State would say: You can't So, as we kind of just [25] because you're not in compliance. [25] discussed here, this is basically

	Page 53			
[1] what we looked at. Alternative	1 age 50	us lot of more out have	Pa	g <b>e 5</b> 5
(2) two is the best balance of all the	·	(1) lot of work out here.		
[3] criteria. We're reducing how much		[2] MR. GRAZIOLI: To be honest,		
(4) contamination is in the soil.	İ	[3] I bought my property in 2006. I		
	,	(4) think if I knew this stuff was		
[5] Getting rid of it completely is		s going on, I would have opted not		
(6) the goal to meet the soil goals of	•	(6) to buy up there, to be totally		
(7) the State. Also, it's quicker		n honest with you, just because it's		
® because we're just digging it out		(B) enough is enough with chemicals		
(9) to get it out. And when it's all		g already. I deal with them all day		
10] gone, it going to be long-term		[10] at my job, I really don't want to		
11) protective, so that's why we felt		[11] be coming home to them too.		
12) this was the best way to go.	,	It seems like something's		
Next one.		(13) changed because all of a sudden,		
14) This is a summary of the		· · · –		
15] same thing we just talked about;		[14] it's a big red flag, there's wells		
16) take everything out, excavate as	·	is being dug. It seems like	•	
much soil as we need to and	,	[18] something — there's something		
whatever else, and restore it to	!	[17] more to this than what I know, and		
is pristing conditions.		[18] that's why I'm here, primarily,		
=	•	[19] because I want to know exactly	•	
And then that's just my new	ا	[20] what's going on.		
info. I just handed out my cards.		[21] It's been contaminated for		
My e-mail is on there for comments	•	[22] how many years and years and		
aj or anything too.		1231 years? And now something's being		
If you go to the Superfund		[24] done about it. This should have		
website, you can get this and see	·	125] been handled a long time ago.		
· ·	Page 54		Pa	ige 56
[1] a lot more information and some of		[1] MR. GARCIA: I think a lot		٠.
2) the proposed planned that we		[2] of it was handled a long time ago	•	
(3) showed, fact sheets, and all that	,	[3] by the State, when they took those	•	
[4] stuff is on there.		[4] inter-remedial measures.		
[5] MR. GRAZIOLI: When was this		[5] The State tried to address		
(6) taken over as a Federal thing?		(6) what they could out there at that		
MR. GARCIA: 2000, Federal		time. I mean, they went on the		
[8] site, was taken over in 2000.		[8] site, they did an evaluation to		
[9] MR. GRAZIOLI: So, basically	•	(9) see what they could address at		
10) ten, eleven years ago.	•	[10] that time.		
So, it seems like recently,	٠,	[11] One of the issues that		
within last six months, there's		happened, certainly, is when the		
13) been a lot of activity.		Radiation Technology folks were in		
MR. GARCIA: Actually,		that place, my understanding is NJ	•	
15) there's been a lot of activity,	,	[15] DEP and Radiation Technology	•	
is it's just a lot of activity was		[16] Folks, there was constant going		
77 conducted more inside the site.		back and forth with them trying to	•	
B) It's probably the last six to		[18] figure out what to do with the		• :
in eight months is where we've been	•	[19] groundwater. And when the		
putting in a series of wells along		[20] Radiation Technology folks went		
Lake Denmark Road. I believe	•	21  out of business, at that point DEP		
		22  said: Maybe, EPA, you give it a	•	
221 that's why we've been cetting		ILZZI DAILI. MAYDE, EFA, YUL BIVE IL A		
,		1		
pay noticed more.		shot because we don't have this		
[22] that's why we've been getting [23] noticed more. [24] But we've been out here [25] quite a bit. We've been doing a		1		

			<u>\</u>
•	Page 57		Page 59
1) resources and the ability to	· 1	in to. So, if we don't sign to it,	
2) expand what we did and try to		2] then we're not —	
(3) identify what contamination was in	4.	(3) MR. GARCIA: We wouldn't	
[4] the groundwater.		[4] sign it.	
[5] And that's what we've been		[5] MR. QUINN: We signed an	
6 doing at this point right now, is		[6] agreement with them to do the	
17] trying to figure that out.		7] work, so now we have an ongoing	
[8] MR. GIARRATANO: Why is the		B) agreement.	
[9] EPA willing to take that on?		MR. GARCIA: We have an	
[10] MR. GARCIA: I don't	1	agreement with them to do these	
[11] understand.		in investigations now.	
[12] MR. GIARRATANO: In other		MR. GABLE: I want to	
[13] words, if it was the State's		13) applaud — although the gentleman	
[14] responsibility.	•	said why did it take so long, I	
[15] MR. GARCIA: Well, my		is want to applaud and put on record	
[16] understanding was — and I wasn't	- 1	16] the time it's taken, how short	
involved in it, but my	. !	it's taken from the end of the	
[18] understanding was in '99, when the	1	is investigation late last year to	
[19] company went bankrupt, DEP had an	1	19] the proposed plan, I think that's	
201 agreement with the Thiokol	I .	very good timing. You guys are	,
[21] Corporation where they indemnified		21] moving fast in that.	
[22] them. This is DEP, what they did,		Then I want to ask how long	
[23] indemnified the Thiokol	.	will it take for the action,	
[24] Corporation for — they agreed on	10	24] actually going out in the field	
[25] certain work they would do and	t	25] and digging up this debris, how	
	Page 58		Page 60
11 then they indemnified them to do	[	[1] long is that process going to take	
2 other work.	1	2 to get from the here, today, to	
[3] EPA did not have that		(3) the backhoe out there?	
[4] agreement with Thiokol. So, I	].	[4] This calendar year?	
is think at that point, when		[5] MR. GARCIA: I believe we	
Radiation Technologies went out of	Ì	[6]: can achieve that.	
17) business, DEP came to us and said:	•	[7] MS. BLOMQUIST: It's the	
[8] You guys don't have that	. [	[8] process. Now that we've got this	
191 agreement. We believe you can		[9] feasibility study, the next step	
nove further with this and,	1	io is getting comments and then doing	
[11] hopefully, negotiate new terms	[0	ii) the Record of Decision, and then,	•
1121 with Thiokol Corporation to have	,	after the Record of Decision, then	
(13) them do additional work.	. [1	we need to negotiate with EPA and	
[14] MR. GIARRATANO: So,	- 1	14) get the Consent Decree to actually	
[15] indemnification is not complete.	1	is do the work.	
[16] That's only if you're still	- 1	MR. GABLE: You need to get	
dealing with DEP. But if you move	L-	a document to do the work, even	er .
[18] to EPA —	- 1	18) though you know you're going to do	
[19] MR. GARCIA: We do not have		19] it.	•
[20] that.	[	You can't just do it?	
[21] MR. GIARRATANO: Bad deal	[-	MS. BLOMQUIST: Right.	
[22] for them, huh?	1	22] There's a process, the EPA has a	,
[23] MR. GARCIA: Yeah, yeah.	1	23) process.	
[24] MR. QUINN: Usually there's	1-	MR. GARCIA: And what the	
[25] a document that the parties sign	t	25) process is, is we have an	

EDA and ATV has an	Page 61		Page 63
in agreement to — EPA and ATK has an		[1] plant, we're not designing an	,
2) agreement to do the investigation,		[2] elaborate type of system.	<b>×</b> (1)
3 and that's where we've been at	•	[3] MR. GIARRATANO: Maybe	
[4] right now.		[4] that's why the gentleman mentioned	
[5] MS. BLOMQUIST: We don't		(5) why can't we just get it going?	• .
(6) have anything beyond that.		[6] MR. GARCIA: That is EPA's	
MR. GARCIA: We don't have a		process on how we —	
[8] legally binding document that says		[8] MR. QUINN: It's the same	
9 ATK will do this work.		[9] process no matter how big the	
[10] MS. SEPPI: That's how it		[10] project is.	
(11) works in most sites where we have		MR. GIARRATANO: You read my	
112) a responsible party.		[12] mind, because I was thinking my	
[13] MR. GARCIA: That will be	·	(13) God, what if it was a bigger	
[14] the next phase. I do not believe	. *	[14] thing?	
[15] we would not enter into this	,	(15) MR. QUINN: It's the same	
[16] agreement. We've been discussing		[16] process, it just might take a	•
(17) this. I don't believe ATK is		little longer for a bigger project	•
[10] going to be a party that would not		(18) because there are more things to	,
[19] do this work at this point.	•	(19) discuss. But this should be	•
[20] MR. GABLE: Does the Record		(20) straightforward enough that we	
of Decision get signed before that		[21] should be able to do it quickly.	4
Reg agreement is negotiated?		[22] MR. GIARRATANO: I asked	
MS. BLOMQUIST: Yes, that		[23] earlier what about Lake Denmark	
[24] has to be done first and then you		[24] and where is that flowing and what	
[25] do agreement. And then we have to		[25] is that polluting as it flows out.	
•	. n. aa l		
	Page 62	•	Page 64
(1) do a remedial design that gets	Page 62	[1] Is there a concern to	Page 64
[2] approved.	Page 62	[2] polluting downstream?	Page 64
[2] approved. [3] MR. MARTIN: Superfund.	Page 62	<ul> <li>polluting downstream?</li> <li>MR. GABLE: Is it legal for</li> </ul>	Page 64
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Page 65	20.00
11 replacing the dam on the Denmark,	Page 67
2 but that's an aside. But we	
sampled the Green Pond Brook and	z like you said, of Lake Denmark
[4] we've sampled Lake Picatinny, and	[3] plus the relatively low
s there are low level hits of	[4] concentrations of volatile
(6) volatile organics from Picatinny	[5] organics, you're not going to see
	[6] that typically in a lake.
77 and Green Pond Brook, but by the	MR. GARCIA: We are
el time it leaves Picatinny, about	[8] monitoring it, and we did put
[9] three miles further from your	9) wells along the lake.
	MS. BLOMQUIST: We just put
	[11] those in. We've sampled one time,
	[12] and we'll be sampling again in
	[13] May.
[14] Lake Denmark —	MR. GABLE: Is there a plan
	[15] to sample the water in the lake
1	[16] and interface or below the
	[17] sediment?
	Just wondering.
[19] MR. GIARRATANO: Is that [20] because there's so much volume in	[19] MR. GARCIA: That's
[21] Lake Denmark that by the time it	[20] something EPA will certainly
22) gets down there, it's —	[21] evaluate. Right now, I don't know
23 MR. GABLE: That could be	22  if we're at that point.  23  MR. GABLE: Okay.
[24] it. And that could be a question	The state of the s
[25] that could be asked whether or	[24] MR. GARCIA: We've just [25] installed these wells. We'd like
Page 66	
11 not — if the groundwater is	Page 66
[2] entering the lake, does it have	23 sampling in the groundwater to see
any impact on the lake?	•
	m what those levels are charries
	(3) what those levels are showing.
[4] I'm not sure if that's been	الا Secondly, I want to mention
[4] I'm not sure if that's been [5] answered. That's not part of this	(4) Secondly, I want to mention (5) to you we had a production well on
[4] I'm not sure if that's been [5] answered. That's not part of this [6] discussion, but it seems like that	[4] Secondly, I want to mention [5] to you we had a production well on [6] the property for many, many years.
[4] I'm not sure if that's been [5] answered That's not part of this [6] discussion, but it seems like that [7] would be a logical thing that we	[4] Secondly, I want to mention [5] to you we had a production well on [6] the property for many, many years. [7] That's been shut off about a year
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I'm not sure if that's been answered. That's not part of this answered. That's that answered. That's fine. That's fine.  MR. GARCIA: That's fine.  MS. BLOMQUIST: Groundwater	[4] Secondly, I want to mention [5] to you we had a production well on [6] the property for many, many years. [7] That's been shut off about a year [8] or two now. And, so, we do [9] believe there was some influence [10] from that location from the draw [11] of that well. [12] So, now what we're seeing is
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		Page 6	a l	
en groui	indwater goes away from our	· · ·		Page 71
	es, is it possible that the	,	(1) that's the ones we've been	•
	aminated soil — I mean, the	*	[2] targeting. We've sampled those	
	ndwater gets effected down		(3) homes numerous times and the	
_			[4] Department of Health has sampled	
	e because it comes through the		[5] those homes numerous times. We	
	nto the water table.	•	[6] haven't seen anything in those	
	s it possible that the		m wells. That's why we haven't	*
[8] CONTA	aminated soil — in other		[8] expanded sampling to other homes.	•
(9) WOR	ds, does that travel?		[9] MR. GIARRATANO: Not even	
[10] D	loes the contamination in		(10) close, not like it's elevated but	
[11] the s	soil travel?		[11] not quite the level you worry	
[12] M	light that be traveling up		(12) about?	
	ards our homes?			
	o we have to worry about	•	(13) MS. BLOMQUIST: No.	•
	ving vegetables or anything		[14] nondetect or low.	,
[15] grow [16] like t		•	[15] MR. GIARRATANO: Would you	
	R. GARCIA: I would say no.		[16] test ours?	
	S. BLOMQUIST: No.		[17] MR. GARCIA: I guess so. I	
•	R. GARCIA: From what we	:	[18] mean, again, the thing is I don't	
	erstand, the contamination came	×	[18] know what the benefit of that	
	the site and from the		would be other than certainly —	
	ations that had happened there		(6.)	
23) previ			[22] mind.	
	R. GIARRATANO: I'm		1231 MR. GARCIA: — peace of	
	dering what kind of creep can		[24] mind. [25] I certainly will talk to	
	<u> </u>	Page 7		Page 70
(i) happ	nen	i ago i	(1) Carrie about it and see if that's	Page 72
	ike salt in an aquarium		ig carrie about it and see it that's	
	creep, you know, like, creep.	•	D	
	ereep, you mie w, mie, ereep.			
	n't think it cares what the			
	n't think it cares what the		[4] I mean —	
[5] groui	ndwater direction is, it's		[4] I mean — [5] MR. GRAZIOLI: Let me put it	
[5] groui	ndwater direction is, it's g to creep wherever it's going		[4] I mean — [5] MR. GRAZIOLI: Let me put it [6] this way: If you were living next	·
[5] ground	ndwater direction is, it's g to creep wherever it's going		[4] I mean — [5] MR. GRAZIOLI: Let me put it [6] this way: If you were living next [7] to a contaminated site, wouldn't	
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	CDA sleeping demonstrated	Page 73	<b>,</b>	Page 75
	EPA cleanup down the road,		[i] to do.	
	ing to be effecting the		[2] MR. GIARRATANO: So, this	
	ly house, I'm sure.		131 was a hearing, basically, to	
	ixes are constantly		[4] solicit commentary from the public	
-	. I'm paying thirteen	1 <del>5</del> 4)	is on whether we prefer we do	
6 grand a	year for two acres of		[6] something or do nothing?	
77 property	<b>7.</b>		[7] MR. GARCIA: It's part of	
[8] MS. B	LOMQUIST: So far, all		[a] the process.	
(9) of our da	ata suggests everything is	•	9 MR. GIARRATANO: I'm onboard	
[10] containe	ed on site except for some		no with you do something.	•
[11] groundy	vater discharging —		[11] MR. GRAZIOLI: Do something,	•
-	RAZIOLI: I just kind	1	12 please.	
	a hug from somebody and		[13] MR. QUINN: In the future,	•
	em say: Come on, I'll		1. 1	
	our stuff and just make		[14] any further activities, we'll [15] probably have some more meetings.	
	rything is all right.			
	LOMQUIST: I don't know		[16] MR. GARCIA: This is one of [17] several phases. We'll have	
• • •	ou guys live, but		1	
	, EPA, like Diego said,		[18] another phase where EPA is going [19] to try to address the buildings	
	t at the perimeter and		[20] and structures and other things we	•
-	ur way out if you have to.		[21] find out there because that's	
<del>-</del>	haven't found that we had		(22) still a whole other aspect of what	
• •	y further. There hasn't	•	123] we need to do.	
-	y data that suggests that		24  MR. GIARRATANO: I'd like to	
	has migrated beyond that		[25] see it.	
		Page 74	[lo] Sec 11.	
[1] site.		· age /4	MR. GARCIA: This is a big	Page 76
	's just how I think that		z site, and we have to do something	
	nation has been made	<b>、</b> *	(3) with those buildings.	
(4) historica		•	MR. GRAZIOLI: All the	•
* -	UINN: We'll talk about	•	[5] asbestos and stuff?	
[6] it.			6 MR. GARCIA: The site, from	
	ARCIA: We can	·		
(8) certainly			mat we understand right now from the building inspector, it's an	•
	UINN: We have your		of old industrial facility. So, it's	
	your addresses.		ing there.	
	IARRATANO: Thank you.		We have taken care of under	
	uld be good.		12  a removal action, an imminent	·
	ARCIA: You have their		[13] threat because what we found was	
(14) addresse		•	[14] behind the 63-acre parcel, it's	•
	EPPI: They both signed		[15] fenced, but there's also a trail	
(is) in.	*		tig behind a portion of the site, and	
	IARRATANO: 20 and 22		we found about six hundred feet of	
[18] Lake De	•			
•	ARCIA: That's fine,		[18] piping that had asbestos that was	•
	RAZIOLI: We have		[19] in disarray and blowing in the [20] wind. And all that asbestos was	
	We're just concerned		1 -	
	ir own health.	V.	[21] blowing onto the trail.	•
• •	ARCIA: We understand.		So, several years ago — I	
• •	RAZIOLI: I understand		[23] don't remember the exact date, but	
• •	s are doing what you have		124 several years ago EPA went there	
,, , o a gu j			[25] and did an action to remove all	

	Page 77			Page 79
[1] that asbestos. And we've removed	Ĵ	[1] yellow barrier.		1 age 13
2 all that. We actually dug up part		(2) What's back in there?	•	
(3) of the trail, removed a lot of the		[3] It's like a big metal —		
[4] soil, tested the soil, and made		140 010011 0 1		
[5] sure the area is clean and				
6 addressed that.		[5] I think that's part of		
We went around the site and		[6] Picatinny property, actually, at		
		(7) that point,		
(8) actually looked for those type of		[8] MR. GRAZIOLI: I was just		•
issues with asbestos because we		191 curious. People usually dump		•
[10] knew it was out there. There is	·	[10] right before there.		
[11] still asbestos in the buildings,		[11] MR. GARCIA: Towards the		
but it's not an immediate threat		12 homes or away from the homes?		
and it's contained in the	·	[13] MR. GRAZIOLI: Away from the		
[14] building. So, at this point, we		114) homes.		
15 can leave it.				
[16] MR. GIARRATANO: Public	ļ	110 00151011 0 1		
in can't get there.		[17] Picatinny As you're coming down,		•
18 MR. GARCIA: I mean, the		[18] it's like you actually go down		
in site is locked.		19 these, like, twisties and the lake		
[20] MS. BLOMQUIST: You're not		[20] is on your right. Right before		
[21] supposed to get in there.	Ì	[21] you go down the twisties, there's		
22) MR. GARCIA: If someone		22] a little off area with the gated		
wants to get in there, they can		[23] thing there.		
[24] get in there. We've tried over				
251 the years to try to contain that		I was just curious.  REPART OF THE PROPERTY OF		•
	. Page 78	in wheel right beare of	<del></del>	
	. rage /o			Page 80
m eita It's a bio sita	ŭ	-1-1	•	
11 site. It's a big site.		[1] right near the ballfields?	•	
(2) MR. GIARRATANO: The MPs	Ž	MR. MARTIN: Before you get		<b>"</b>
(2) MR. GIARRATANO: The MPs [3] don't patrol that?		(2) MR. MARTIN: Before you get (3) to the ballfields.		
<ul> <li>MR. GIARRATANO: The MPs</li> <li>don't patrol that?</li> <li>MR. GARCIA: No.</li> </ul>	·	(2) MR. MARTIN: Before you get (3) to the ballfields. (4) MR. GABLE: They set up an		<b>.</b>
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		Page 81	. Page 8
[1]	Do they talk about this at		[1] it's an industrial area. I'm not
[2]	all?		[2] stupid, I've lived here all my
[3]	MR. GRAZIOLI: Absolutely.	•	[3] life. Things are what they are.
[4]	This has been a big buzz with		[4] I just want to make sure
[5]	e-mails.	₩.a.	[5] whatever it is, it's safe for us.
[6]	Of course, everybody tonight		161 That's the bottom line for me.
[7]	never showed up. Everybody wanted		[7] MS. SEPPI: It's totally
[8]	to come here and ask a lot of		18) understandable.
[9]	questions.		9 Anything else?
[10]	We're just concerned because	•	[10] MR. GARCIA: Any other
[11]	these are our homes.	•	[11] questions?
[12]	05001		1 -
	information that you can take back		[12] That's it. Well, thank you
	and talk to them and be helpful.		pro all.
	And tell them, they can call us	•	[14] MS. SEPPI: Thanks for
	any time.		[16] coming out. We appreciate that.
	ALD ODATION INTO A	•	[16]
[17]	spoke to him, and that was great.	•	(Time noted: 8:20 p.m.)
	Definitely informative and walked		[18]
	me through a lot of process.		[19]
		•	[20]
[21]	want to know we're living in a		[21]
	safe area.		[22]
[24]		•	[53]
	And we know this is kind of	•	[24]
[25]	And we know this is knie of		[25]
74	a bad week to have a meeting	Page 82	Page
	because of Passover week and	•	[1] CERTIFICATE
	Easter week, but we have to have		[2] STATE OF NEW JERSEY)
			[3] ) 9s.
	OUT INCCUIS IN INC INICIAL OF INC		
	our meeting in the middle of the comment period.		[4] COUNTY OF HUDSON )
[5	comment period.		[5] I, LINDA A. MARINO, RPR,
[5 [6	comment period.  I don't know if that would		[5] I, LINDA A. MARINO, RPR, [6] CCR, a Shorthand (Stenotype)
[5 [6]	I don't know if that would have made a difference.		[5] I, LINDA A. MARINO, RPR, [6] CCR, a Shorthand (Stenotype) [7] Reporter and Notary Public of the
[5 [6] [7]	comment period.  I don't know if that would have made a difference.  MR. GRAZIOLI: I think a lot		[5] I, LINDA A. MARINO, RPR, [6] CCR, a Shorthand (Stenotype)
[5 [6] [7 [8]	Comment period.  I don't know if that would have made a difference.  MR. GRAZIOLI: I think a lot of people, it's like different		[5] I, LINDA A. MARINO, RPR, [6] CCR, a Shorthand (Stenotype) [7] Reporter and Notary Public of the [8] State of New Jersey, do hereby
[5 [6] [7 [8] [9]	comment period.  I don't know if that would have made a difference.  MR. GRAZIOLI: I think a lot of people, it's like different birthdays and getting ready for		[5] I, LINDA A. MARINO, RPR, [6] CCR, a Shorthand (Stenotype) [7] Reporter and Notary Public of the [8] State of New Jersey, do hereby [9] certify that the foregoing
[5 [6] [7] [8] [9] [10]	comment period.  I don't know if that would have made a difference.  MR. GRAZIOLI: I think a lot of people, it's like different birthdays and getting ready for the weekend. Hectic.		[5] I, LINDA A. MARINO, RPR, [6] CCR, a Shorthand (Stenotype) [7] Reporter and Notary Public of the [8] State of New Jersey, do hereby [9] certify that the foregoing [10] transcription of the public hearing
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FINK & CARNEY (800) NYC-FINK

500092

# Lawyer's Notes

# APPENDIX IV

**Administrative Record Index** 

# RADIATION TECHNOLOGY, INC. SITE OPERABLE UNIT TWO ADMINISTRATIVE RECORD FILE INDEX OF DOCUMENTS

## 3.0 REMEDIAL INVESTIGATION

#### 3.3 Work Plans

P. 300001 - Report: Remedial Investigation/Feasibility Study
300692 Work Plan-Operable Unit 2 (OU-2), RTI Superfund
Site, Rockaway Township, New Jersey, prepared by
Conestoga-Rovers & Associates, prepared for U.S.
Environmental Protection Agency, Region 2,
August 2008.

## 3.4 Remedial Investigation Reports

- P. 300693 Report: <u>U.S. Environmental Protection Agency</u>
  300699 <u>Comments, Site Characterization Report, Radiation</u>
  DOC. ID 108520 <u>Technology, Inc. Superfund Site</u>, November 10,
- P. 300700 Report: Draft Site Characterization Summary
  303753 Report, Operable Unit 2, RTI Superfund Site,
  Rockaway Township, New Jersey, prepared by
  Conestoga-Rovers & Associates, prepared for U.S.
  Environmental Protection Agency, Region 2,
  February 2010.

## 3.5 Correspondence

P. 303754 - Letter to Ms. Karie Mars, P.E., Remediation
303754 Engineer, Alliant Techsystems, Inc., from Ms.
Carole Petersen, Chief, New Jersey Remediation
Branch, U.S. Environmental Protection Agency,
Region 2, re: Administrative Order on Consent
(02-2004-2033), Conditional Approval of Operable
Unit Two Site Characterization Summary Report,
Radiation Technology, Inc. Superfund Site,
November 25, 2009.

- P. 303755 Technical Memorandum, Ref. No.: 004354, to
  303756 Ms. Karie Blomquist, ATK, from Mr. Robert Martin,
  Conestoga-Rovers & Associates, re: Identification
  of Candidate Technologies, Radiation Technology
  Incorporated Superfund Site, Rockaway Township,
  New Jersey, January 11, 2010.
- P. 303757 Letter to Mr. Diego Garcia, New Jersey Remediation
  303757 Branch, Emergency & Remedial Response Division,
  U.S. Environmental Protection Agency, Region 2,
  from Ms. Karie (Mars) Blomquist, P.E., Remediation
  Engineer, Alliant Techsystems, Inc., re:
  Administrative Order on Consent (02-2004-2033),
  Identification of Candidate Technologies
  Memorandum, Operable Unit Two, RTI Superfund Site,
  Rockaway Township, New Jersey, January 12, 2010.
- P. 303758 Letter conditionally approving the report to Ms.
  303758 Karie Blomquist, P.E., Remediation Engineer,
  Alliant Techsystems, Inc., from Ms.Carole
  Petersen, Chief, New Jersey Remediation Branch,
  U.S. Environmental Protection Agency, Region 2,
  re: Administrative Order on Consent 02-2004-2033),
  Operable Unit Two (Soil Remedial Investigation),
  Site Characterization Summary Report, Radiation
  Technology, Inc. Superfund Site, Rockaway
  Township, New Jersey, February 22, 2010.
- P. 303759 Letter conditionally approving the report to Ms.
  303761 Karie Blomquist, P.E., Remediation Engineer,
  Alliant Techsystems, Inc. from Ms. Carole
  Petersen, Chief, New Jersey Remediation Branch,
  U.S. Environmental Protection Agency, Region 2,
  re: Administrative Order on Consent (02-20042033), Operable Unit Two (Soil Remedial
  Investigation), Radiation Technology, Inc.
  Superfund Site, Remedial Investigation Report,
  Rockaway Township, New Jersey, July 22, 2010.

## 7.0 ENFORCEMENT

#### 7.3 Administrative Orders

p. 700001 - Administrative Order on Consent for Remedial 700065 Investigation/Feasibility Study, Operable Unit 2, U.S. EPA Index No. 02-2004-2033, In the matter of:

DOC. ID 108557

Radiation Technology Inc. Superfund Site, Alliant Techsystems Inc. Respondent. Proceeding Under Sections 104, 122 (a), and 122 (d)(3)of the Comprehensive Environmental Response, Compensation, and Liability Act as amended (42 U.S.C. §§ 9604, 9607, 9622(a), 9622(d)(3), September 28, 2004.

# RADIATION TECHNOLOGY, INC. SITE OPERABLE UNIT TWO ADMINISTRATIVE RECORD FILE UPDATE INDEX OF DOCUMENTS

### 3.0 REMEDIAL INVESTIGATION

## 3.4 Remedial Investigation Reports

P. 303762 - Report: Remedial Investigation Report, Operable Unit 2,
307225 Radiation Technology Inc. Superfund Site, Rockaway
Township, New Jersey, prepared by Conestoga-Rovers &
Associates, prepared for U.S. Environmental Protection
Agency, Region 2, August 2010.

## 3.5 Correspondence

P. 307226 - Letter to Mr. Diego Garcia, New Jersey Remediation Branch, Emergency & Remedial Response Division, U.S. Environmental Protection Agency, Region 2, from Ms. Karie Blomquist, P.E., Remediation Engineer, ATK, re: Administrative Order on Consent (02-2004-2033) Remedial Investigation Report, Operable Unit Two, Radiation Doc ID 108539 Technology, Inc. Superfund Site, Rockaway Township, New Jersey, August 23, 2010. (Enclosures: (1) Report: Remedial Investigation Report, Operable Unit 2, Radiation Technology Inc. Superfund Site, Rockaway Township, New Jersey, prepared by Conestoga-Rovers & Associates, prepared for U.S. Environmental Protection Agency, Region 2, August 2010; (2) Responses to U.S. EPA Comments dated July 14, 2010, Draft Remedial Investigation Report, Operable Unit Two (OU2), Radiation Technology, Inc. Superfund Site, Rockaway Township, New Jersey).

#### 4.0 FEASIBILITY STUDY

## 4.3 Feasibility Study Reports

P. 400001 - Report: Focused Feasibility Study Report, Operable Unit
400038 2, Radiation Technology, Inc. Superfund Site, Rockaway
Township, New Jersey, prepared by Conestoga-Rovers &
Associates, prepared for U.S. Environmental Protection
Agency, Region 2, March 2011.

## 10.0 PUBLIC PARTICIPATION

## 10.9 Proposed Plan

P. 10.00001- Report: <u>Superfund Program Proposed Plan</u>, <u>Radiation</u> 10.00007 <u>Technology</u>, <u>Inc. Superfund Site</u>, prepared by U.S. Environmental Protection Agency, Region 2, 2011.

Doc ID 110817

# APPENDIX V

**State Letter of Concurrence** 



# State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
401 East State Street
P.O. Box 420 Mail Code 401-05F
Trenton, NJ 08625-0028

BOB MARTIN Commissioner

August 30, 2011

KIM GUADAGNO Lt. Governor

Walter Mugdan, Director
Emergency and Response Division
U.S. Environmental Protection Agency
Region II
290 Broadway
New York City, New York 10007-1866

Re:

Record of Decision (ROD) Letter of Concurrence Radiation Technology, Inc. Superfund Site 108 Lake Denmark Road

Rockaway Township, Morris County

SRP PI# 019440

Dear Mr. Mugdan:

The New Jersey Department of Environmental Protection (Department) has completed its review of the September 2011 Record of Decision (ROD) for the Drum Disposal Area at the Radiation Technology, Inc. Superfund Site, Rockaway Township, Morris County, New Jersey, prepared by the U.S. Environmental Protection Agency (EPA) Region II. The Department concurs with the selected remedy for the site.

The response action described in this document addresses a drum disposal area at the Radiation Technology, Inc. site. A previous ROD, signed in May 1994, addressed groundwater contamination at the Site.

The major component of the Selected Remedy is the following:

 Excavation of drum material and surrounding soils with off-site disposal and/or treatment.

The Department appreciates the opportunity to participate in the decision making process to select an appropriate remedy at the Radiation Technology, Inc. Site and is looking forward to future such cooperation with EPA during the remaining remedial work at this site.

Sincerely,

Len Romino, Assistant Director Responsible Party Remediation

cc:

Honorable Louis S. Sceusi, Mayor, Rockaway Twp.

Mary Cilurso, Municipal Clerk, Rockaway Twp.

Brian Quinn, USEPA Region II